IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of)
)
Krishna A. BHARAT et al.) Group Art Unit: 2175
)
Application No.: 09/734,887) Examiner: D. Mizrahi
)
Filed: December 13, 2000)
)
For: SYSTEM AND METHOD FOR)
     SUPPORTING EDITORIAL)
     OPINION IN THE RANKING)
     OF SEARCH RESULTS)

TRANSMITTAL FOR APPEAL BRIEF

U.S. Patent and Trademark Office
220 20th Street S.
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Crystal Plaza Two, Lobby, Room 1B03
Arlington, Virginia 22202

Sir:

Transmitted herewith in triplicate is an Appeal Brief in support of the Notice of Appeal filed May 6, 2004.

Enclosed is a check for $750.00 (which includes the $330.00 fee for filing an Appeal Brief and $420.00 for a two-month extension of time).

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 50-1070. This paper is submitted in triplicate.

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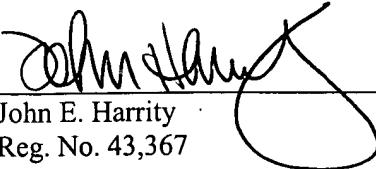
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PATENT
Attorney Docket No. **0026-0004**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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APPEAL BRIEF

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Arlington, Virginia 22202

Sir:

This Appeal Brief is submitted in triplicate in response to the Office Action,

mailed February 6, 2004, and in support of the Notice of Appeal, filed May 6, 2004.

I.   REAL PARTY IN INTEREST

The real party in interest in this appeal is Google, Inc.

II.   RELATED APPEALS AND INTERFERENCES

Appellants are unaware of any related appeals and interferences.

III.   STATUS OF CLAIMS

Claims 1-23 are pending in this application.

IV.   STATUS OF AMENDMENTS

No Amendments were filed after the non-final Office Action of February 6, 2004.

V.   SUMMARY OF THE INVENTION

Systems and methods consistent with the principles of the invention support

editorial opinion in the ranking of search results. An exemplary process for determining

editorial opinion parameters is described with respect to Fig. 5.

As illustrated, processing may begin by developing a set of query themes by, for

example, surveying user search query logs, experimenting with test search queries, and

examining search result lists (act 510; pg. 13, lines 17-21). For each query theme, query

theme criteria for identifying whether a particular search query satisfies a query theme

may be identified (act 520; pg. 14, lines 2-3). The query theme criteria may be in the

form of one or more rules and/or sets of categories or topics from a directory (pg. 14,

lines 3-5).

Once query themes and associated criteria have been developed, sets of web sites

as being from "favored sources" and "non-favored sources" may be identified for each

query theme (act 530; pg. 14, lines 9-11). "Favored sources" may refer to those web

pages/sites identified as containing useful and authoritative content on the subject desired

and "non-favored sources" may refer to those web pages/sites identified as sources of

misinformation or over-promotion on that subject (pg. 14, lines 11-14). For each web

page/site identified as favored and non-favored, an editorial opinion parameter may be

determined for that site (act 540; pg. 14, lines 20-21). The query themes, query theme

criteria, sets of favored and non-favored web pages/sites for each query theme, and an

editorial opinion parameter for each favored and non-favored web page/site may be stored

in memory, as illustrated in Fig. 4 (act 550; pg. 15, lines 2-5).

An exemplary process for integrating editorial opinion in the ranking of search

results is disclosed with respect to Fig. 6. Processing may begin by receiving a search

query, containing one or more search terms, from a user (act 610; pg. 15, lines 7-9).

Based on the query, relevant web pages may be retrieved and scored using conventional

techniques (act 620; pg. 15, lines 10-12). It may be determined if an editorial opinion

exists for the search query (act 630; pg. 15, lines 18-19). To make such a determination,

it may be determined whether the search query satisfies a query theme by, for example,

determining whether the query satisfies a rule associated with the query theme or relates

to the categories/topics associated with the query theme (Fig. 4; pg. 15, line 19, to pg. 16,

line 10). In one exemplary implementation consistent with the invention, to classify a

query into a set of topics, the pages in the result set for the query may be compared with

pages previously associated with each of the topics (e.g., in hierarchical directories) (pg. 16, lines 11-20).

If the search query satisfies a query theme and, therefore, an editorial opinion exists for the search query, a set of web sites affected by the query theme may be determined by determining whether the retrieved web pages are associated with any of the favored or non-favored sources associated with the query theme (act 640; pg. 16, line 21, to pg. 17, line 4). For each web page in the result set that is associated with one of the web sites in the set of affected web sites, an updated score using an editorial opinion parameter for that web site may be determined (act 650; pg. 17, lines 4-6). An editorial opinion parameter for a favored source may, for example, cause the score of the associated web page to be upgraded by a percentage of its previous score or by an absolute value (pg. 17, lines 7-9). Similarly, for non-favored sources, the applicable editorial opinion parameter may cause the score of the associated web page to be downgraded by a percentage of its previous score or an absolute value (pg. 17, lines 9-11).

VI.   ISSUES

Whether claims 1-23 are unpatentable under 35 U.S.C. § 103(a) over Conklin et al. (U.S. Patent No. 6,363,378) in view of Chakrabarti et al. (U.S. Patent No. 6,356,899).

VII.   GROUPING OF CLAIMS

Claims 1 and 7-10 stand or fall together. Claims 11 and 20-22 stand or fall

together. Claims 13 and 14 stand or fall together. Claims 15, 17, and 18 stand or fall

together. Each of claims 2-6, 12, 16, 19, and 23 stand or fall alone. The patentablility of

each of these different groups is argued separately below.

VIII.   ARGUMENT

A.   The rejection of claims 1-23 under 35 U.S.C. § 103(a) as unpatentable over Conklin et al. (U.S. Patent No. 6,363,378) in view of Chakrabarti et al. (U.S. Patent No. 6,356,899) should be REVERSED.

Claims 1-23 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable

over Conklin et al. in view of Chakrabarti et al. The arguments below use claim 1 as

representative of the group of claims including claims 1 and 7-10. The arguments below

use claim 11 as representative of the group of claims including claims 11 and 20-22. The

arguments below use claim 13 as representative of the group of claims including claims

13 and 14. The arguments below use claim 15 as representative of the group of claims

including claims 15, 17, and 18.

The initial burden of establishing a *prima facie* basis to deny patentability to a

claimed invention always rests upon the Examiner. In re Oetiker, 977 F.2d 1443, 24

USPQ2d 1443 (Fed. Cir. 1992). In rejecting a claim under 35 U.S.C. § 103, the

Examiner must provide a factual basis to support the conclusion of obviousness. In re

Warner, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). Based upon the objective

evidence of record, the Examiner is required to make the factual inquiries mandated by

Graham v. John Deere Co., 86 S.Ct. 684, 383 U.S. 1, 148 USPQ 459 (1966). The

Examiner is also required to explain how and why one having ordinary skill in the art

would have been realistically motivated to modify an applied reference and/or combine

applied references to arrive at the claimed invention. Uniroyal, Inc. v. Rudkin-Wiley

Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

In establishing the requisite motivation, it has been consistently held that the

requisite motivation to support the conclusion of obviousness is not an abstract concept,

but must stem from the prior art as a whole to impel one having ordinary skill in the art to

modify a reference or to combine references with a reasonable expectation of successfully

achieving some particular realistic objective. See, for example, Interconnect Planning

Corp. v. Feil, 227 USPQ 543 (Fed. Cir. 1985). Consistent legal precedent admonishes

against the indiscriminate combination of prior art references. Carella v. Starlight

Archery, 804 F.2d 135, 231 USPQ 644 (Fed. Cir. 1986); Ashland Oil, Inc. v. Delta Resins

& Refractories, Inc., 776 F.2d 281, 227 USPQ 657 (Fed. Cir. 1985).

1.   **Claim 1**

With the above principles in mind, Appellants' claim 1 is directed to a method for

providing search results. The method includes receiving a search query, retrieving one or

more objects in response to the search query, determining whether the search query

corresponds to at least one query theme of a group of query themes, ranking the one or

more objects based on a result of the determination, and providing the ranked one or more

objects.

At the outset, Appellants note that the Examiner relies on <u>Conklin et al.</u> ALONE

for disclosing all of the features of Appellants' claim 1 (see, pages 3-4 of the Office

Action). Therefore, Appellants submit that the rejection of claim 1 under 35 U.S.C. §

103(a) based on <u>Conklin et al.</u> AND <u>Chakrabarti et al.</u> is IMPROPER. Withdrawal of the

rejection of claim 1 is respectfully requested.

Nevertheless, <u>Conklin et al.</u> and <u>Chakrabarti et al.</u>, whether taken alone or in any

reasonable combination, do not disclose or suggest the combination of features recited in

Appellants' claim 1. For example, <u>Conklin et al.</u> and <u>Chakrabarti et al.</u> do not disclose

determining whether the search query corresponds to at least one query theme of a group

of query themes and ranking one or more objects based on a result of the determination.

The Examiner relies on col. 3, line 67, to col. 4, line 8, and col. 4, lines 37-38, and 51-64,

of <u>Conklin et al.</u> for allegedly disclosing determining whether the search query

corresponds to at least one query theme of a group of query themes and on col. 5, lines 1-

9, of <u>Conklin et al.</u> for allegedly disclosing ranking one or more objects based on a result

of the determination (Office Action, page 3). Appellants submit that these sections of

<u>Conklin et al.</u> do not disclose these features of claim 1.

At col. 3, line 66, to col. 4, line 8, <u>Conklin et al.</u> discloses:

> In one embodiment, the query processing 175 processes theme queries and
> text queries. For theme queries, the query processing 175 processes the
> input user query to identify the thematic content of the query. Specifically,
> a content processing system 110 (FIG. 7) analyzes the words or terms in
> the query to generate a query theme vector. In general, the query theme

vector presents a thematic profile of the content in the query. A further
discussion of theme vectors is described more fully below in the section
"Content Processing System."

This section of Conklin et al. discloses the generation of a query theme vector based on

terms in a theme query. The Examiner alleges that Conklin et al.'s theme queries are

equivalent to the recited query themes (Office Action, page 3). Appellants disagree.

One skilled in the art would readily recognize that a query theme (a theme), which

is recited in claim 1, is not the same as a theme query (words or phrases used to conduct a

search). The Examiner does not point to any section of Conklin et al. that supports the

allegation that a query is the same as a theme. Moreover, the Examiner does not logically

explain how a query can be interpreted to be equivalent to a theme. Appellants submit

that the Examiner has clearly misinterpreted the language of claim 1.

Even assuming, for the sake of argument, that one skilled in the art could

reasonably construe a query theme to be the same as a theme query, Appellants submit

that the above section of Conklin et al. in no way discloses or suggests determining

whether a search query corresponds to at least one theme query of a group of theme

queries. Conklin et al. in no way discloses or suggests determining whether search

queries correspond to theme queries.

Conklin et al. discloses query processing 175 processing theme queries and text

queries (col. 3, lines 66-67). For a theme query, a content processing system 110

analyzes the terms in the query and generates a query theme vector in response thereto

(col. 4, lines 1-6). For a text query, on the other hand, Conklin et al. discloses that query

processing 175 does not analyze the text in the query to ascertain the thematic content,

but rather uses the query terms to process the query (col. 4, lines 9-12). Conklin et al.

does not disclose or suggest, with respect to the theme queries or text queries,

determining whether the search query corresponds to at least one query theme of a group

of query themes AND ranking one or more objects based on a result of the determination,

as required by Appellants' claim 1.

At col. 4, lines 33-38, Conklin et al. discloses:

> Although the query feedback of the present invention is described in
> conjunction with a system that identifies a document hit list, the invention
> may also be used in conjunction with a system that identifies any type of
> information that includes a plurality of topics responsive to the user query.

This section of Conklin et al. in no way discloses or suggests determining whether the

search query corresponds to at least one query theme of a group of query themes AND

ranking one or more objects based on a result of the determination, as required by

Appellants' claim 1.

At col. 4, line 51-64, Conklin et al. discloses:

Table 1 is an example document theme vector 160.

TABLE 1
Document Theme Vector

Document Themes	Theme Strength	Classification Category
Theme$_1$	190	(category$_a$)
Theme$_2$	110	None
Theme$_3$	70	(Category$_c$)
Theme$_4$	27	(Category$_d$)
. .	. .	. .
. .	. .	. .

Theme$_n$ 8   (Category$_z$)

This section of <u>Conklin et al.</u> discloses a document theme vector. As illustrated in the

above table, a document theme vector includes a list of document themes (Themes 1-N),

a theme strength for each document theme, and a classification category for each

document theme. This section of <u>Conklin et al.</u> does not disclose or suggest theme

queries, which the Examiner alleges corresponds to the recited query themes. Therefore,

it appears, based on this section, that the Examiner may also be alleging that the recited

query themes also correspond to document themes. <u>Conklin et al.</u> in no way discloses or

suggests that these document themes are equivalent to query themes. The Examiner has

not pointed to any section of <u>Conklin et al.</u> that supports this allegation.

Moreover, even assuming, for the sake of argument, that <u>Conklin et al.</u>'s theme

queries or document themes could reasonably be construed to correspond to a group of

query themes, <u>Conklin et al.</u> in no way discloses or suggests determining whether a search

query corresponds to at least one document theme of a group of document themes or

ranking one or more objects based on the result of the determination. In stark contrast,

<u>Conklin et al.</u> merely discloses that query processing 175 identifies one or more

documents 130 in response to the input user query as the document hit list (col. 4, lines

29-31) and that the documents in the hit list are associated with a document theme vector

(col. 4, lines 40-43). Similar to the other sections of <u>Conklin et al.</u> relied on by the

Examiner, this section of <u>Conklin et al.</u> in no way discloses or suggests determining

whether the search query corresponds to at least one query theme of a group of query

themes and ranking one or more objects based on a result of determining whether a search

query corresponds to at least one query theme of a group of query themes, as required by

Appellants' claim 1.

At col. 5, lines 1-9, Conklin et al. discloses:

Each theme has a corresponding theme strength. The theme strength is
calculated in the theme vector processor 750 (FIG. 7). The theme strength
is a relative measure of the importance of the theme to the overall content
of the document. For this embodiment, the larger the theme strength, the
more important the theme is to the overall content of the document. The
document theme vector 160 lists the document themes from the most
important to the least important themes (e.g., $theme_1$ -$theme_n$).

This section of Conklin et al. discloses that document themes in a document theme vector

are listed from the most important to the least important. Despite the Examiner's

allegation, this section of Conklin et al. in no way discloses or suggests ranking one or

more objects based on a result of determining whether a search query corresponds to at

least one query theme of a group of query themes. In stark contrast, this section of

Conklin et al. merely discloses that a document theme vector 160 lists the document

themes from the most important to the least important. The Examiner fails to explain

how this disclosure is at all relevant to ranking one or more objects based on a result of

determining whether a search query corresponds to at least one query theme of a group of

query themes.

Conklin et al. and Chakrabarti et al. do not further disclose providing the ranked

one or more objects, as also recited in Appellants' claim 1. With respect to this feature,

the Examiner alleges that "theme strength is a relative measure of the importance of the

theme.... Document themes form the most important to the least important themes, e.g.

theme 1 - theme n" and relies on col. 5, lines 1-9, of Conklin et al. for support (Office

Action, pages 3-4). While the Examiner's allegation regarding theme strength seems to

correspond to the disclosure of Conklin et al., the Examiner does not logically explain

how the strength of a theme in a document theme vector in any way relates to providing

the ranked one or more objects. If the Examiner is alleging that the theme strengths

correspond to the ranked one or more objects, the Examiner has not pointed to any

section of Conklin et al. that discloses retrieving one or more theme strengths in response

to receiving a search query or ranking the one or more theme strengths based on

determining whether the search query corresponds to at least one query theme in a group

of query themes, as would be required by Appellants' claim 1. The disclosure of Conklin

et al. does not support this allegation.

Although not relied upon in the rejection of claim 1, the disclosure of Chakrabarti

et al. does not remedy the above deficiencies in the disclosure of Conklin et al.

For at least the foregoing reasons, Appellants submit that the rejection of claim 1

under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper.

Accordingly, Appellants request that the rejection be reversed.

2.   **Claim 2**

Claim 2 depends from claim 1. Therefore, this claim is patentable over Conklin et

al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 1. Moreover, this claim recites an

additional feature not disclosed or suggested by <u>Conklin et al.</u> and <u>Chakrabarti et al.</u>

Claim 2 recites that the objects include web pages. The Examiner relies on col. 1,

line 57, to col. 2, line 17, of <u>Conklin et al.</u> for allegedly disclosing this feature (Office

Action, page 4). This section of <u>Conklin et al.</u> does not disclose or suggest the feature of

claim 2.

Col. 1, line 57, to col. 2, line 17, of <u>Conklin et al.</u> corresponds to the

background section of <u>Conklin et al.</u> and discloses:

> For a user seeking high precision and recall, the query process is typically
> a random iterative process. A user starts the process by issuing the initial
> query. If the number of documents in the information retrieval system is
> large (e.g., a few thousand), the hit-list due to the initial query does not
> represent the exact information the user intended to obtain. Thus, it is not
> just the non-ideal behavior of information retrieval systems responsible for
> the poor initial hit-lists, but the user also contributes to degradation of the
> system by introducing error. User error manifests itself in several ways.
> One way user error manifests itself is when the user does not know exactly
> what he/she is looking for, or the user has some idea what he/she is
> looking for but doesn't have all the information to specify a precise query.
> An example of this type of error is one where the user is looking for
> information on a particular brand of computer but does not remember the
> brand name. For this example, the user may start by querying for
> "computers." A second way user error manifests itself is when the user is
> looking for some information generally interesting to the user but can only
> relate this interest via a high level concept. An on-line world wide web
> surfer is an example of such a user. For example, the user may wish to
> conduct research on recent issues related to "Middle East", but does not
> know the recent issues to search. For this example, if a user simply does a
> search on "Middle East", then some documents relevant to the user, which
> deal with current issues in the "petroleum industry", will not be retrieved.

This section of <u>Conklin et al.</u> discusses the problems with conventional information

retrieval systems. While this background section of <u>Conklin et al.</u> uses the phrase "world

wide web," this section of <u>Conklin et al.</u> does not disclose or suggest that <u>Conklin et al.</u>'s

information retrieval system 100, on which the Examiner relies for allegedly including

the features recited in Appellants' claim 1, retrieves and ranks web pages. In fact, this

background section of <u>Conklin et al.</u> in no way relates to <u>Conklin et al.</u>'s information

retrieval system 100, but is instead directed to conventional information retrieval systems.

The Examiner has not pointed to any section of <u>Conklin et al.</u> that discloses that this

conventional information retrieval system, described in the above section of <u>Conklin et</u>

<u>al.</u>, determines whether a search query corresponds to at least one query theme of a group

of query themes, ranks one or more web pages based on a result of the determination, and

provides the ranked one or more web pages, as required by claim 2.

<u>Conklin et al.</u> does not disclose that a user of <u>Conklin et al.</u>'s information retrieval

system 100 retrieves web pages. In fact, <u>Conklin et al.</u> specifically discloses that the

retrieved documents include articles, books, or periodicals (col. 4, lines 26-28). <u>Conklin</u>

<u>et al.</u> does not disclose or suggest retrieving one or more web pages in response to a

search query, ranking the one or more web pages based on a result of determining

whether the search query corresponds to at least one query theme of a group of query

themes, and providing the ranked one or more web pages, as required by Appellants'

claim 2.

Moreover, as set forth above, the Examiner appears to allege that <u>Conklin et al.</u>'s

theme strengths, which are contained in a document theme vector, correspond to the one

or more objects, recited in Appellants' claim 1 (see, for example, pages 4-3 of the Office

Action). Conklin et al. in no way discloses or suggests that the theme strengths are web

pages. Instead, Conklin et al. specifically discloses that the theme strength is a measure

of the importance of a theme to the overall content of the document with which the

document theme vector containing the theme strength is associated (col. 5, lines 3-5).

Therefore, it is unclear as to how the Examiner can allege, on the one hand, that the one

or more objects are theme strengths, and then, on the other hand, that the one or more

objects are web pages. Such claim construction is clearly impermissible.

For at least the foregoing reasons and for the reasons given above with respect to

claim 1, from which claim 2 depends, Appellants submit that the rejection of claim 2

under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper.

Accordingly, Appellants request that the rejection be reversed.

3.   Claim 3

Claim 3 depends from claim 1. Therefore, this claim is patentable over Conklin et

al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 1. Moreover, this claim recites an

additional feature not disclosed or suggested by Conklin et al. and Chakrabarti et al.

Claim 3 recites determining whether any of the one or more objects relates to a list

of favored and non-favored sources. The Examiner admits that Conklin et al. does not

disclose this feature and relies on col. 7, lines 21-32, of Chakrabarti et al. for allegedly

disclosing determining whether any of the one or more objects relates to a list of favored

sources (Office Action, page 4). This section of <u>Chakrabarti et al.</u> does not disclose or

suggest the feature of claim 3.

At col. 7, lines 21-43, <u>Chakrabari et al.</u> discloses:

> More specifically, while frame attributes may define the subject matter
> categories of the organizational structure; i.e., function as classification
> designators, and, therefore, be suitable for initially retrieving pages
> relevant to those categories, the frame attributes as query terms may also
> be used to increase the weight afforded a link by virtue of the query term
> falling within a predetermined "window" of text from the link, thereby,
> suggesting heightened relevance for the link by virtue of its proximity to
> the query term as will be more fully described in connection with the
> detailed description of the preferred embodiment hereafter.

This section of <u>Chakrabarti et al.</u> discloses that frame attributes may be used as query

terms to increase the weight afforded a link. Contrary to the Examiner's allegation, this

section of <u>Chakrabarti et al.</u> does not disclose or suggest determining whether any of the

one or more objects, retrieved in response to a search query, relates to a list of favored

sources.

<u>Chakrabarti et al.</u> discloses that query terms can include identification of example

hub pages and authority pages (col. 7, lines 33-37). <u>Chakrabarti et al.</u> discloses that,

following the return of the initial set of pages in response to a search query, the initial set

is supplemented based on whether example pages were specified (col. 7, line 66, to col. 8,

line 1). If example hub pages were specified, any page that is pointed to by the example

hub pages is used to supplement the initial set (col. 8, lines 2-4). If example authority

pages were specified, the initial set is supplemented by including any page that points to

at least two example authority pages (col. 8, lines 8-10). Since <u>Chakrabarti et al.</u> does not

disclose or suggest determining whether the initial set relates to the example hub pages or

example authority pages, <u>Chakrabarti et al.</u>'s example hub pages and example authority

pages cannot correspond to the favored sources, recited in Appellants' claim 3.

Even assuming, for the sake of argument, that one skilled in the art could

reasonably construe <u>Chakrabarti et al.</u> to disclose determining whether any of the one or

more objects relates to a list of favored and non-favored sources, Appellants submit that

one skilled in the art would not have been motivated to combine this alleged teaching of

<u>Chakrabarti et al.</u> with the disclosure of <u>Conklin et al.</u>, absent impermissible hindsight.

With respect to motivation, the Examiner alleges that "[i]t would have been obvious ... to

modify the teachings of Conklin with the teachings of Chakrabarti ... with the motivation

to enable the user to ... search conveniently and efficiently to identify information

elements on the World Wide Web pages... having relevance to subject matter of interest

(Chakrabarti, col 5, lines 50-56) and also for improving the determination of relevance

amongst the related information elements as the Web pages considered as a whole, in

part, or in combination by filtering to reduce the effects of spurious factors which

adversely effect accuracy (Chakrabarti, col 5, lines 24-29)" (Office Action, pages 4-5).

Appellants respectfully disagree.

Initially, Appellants note that the alleged motivation (i.e., to enable a user to

search conveniently and efficiently and to improve the determination of relevance

amongst related information elements) is merely a conclusory statement regarding alleged

benefits of the combination. Such motivation does not satisfy the requirements of 35

U.S.C. § 103. In this respect, Appellants rely upon In re Deuel, 51 F.3d 1552, 34

USPQ2d 1210 (Fed. Cir. 1995), where it was held that generalizations do not establish

the realistic motivation to modify a specific reference in a specific manner to arrive at a

specifically claimed invention.

Secondly, the portions of Chakrabarti et al. on which the Examiner relies

(i.e., col. 5, lines 50-56 and 24-29) also provide no support for the combination.

At col. 5, lines 50-56, Chakrabarti et al. discloses:

> Yet additionally, it is also an object of the present invention to provide a
> method for enabling users to interactively develop databases of preferred
> information elements, which databases may be subsequently searched
> conveniently and efficiently to identify information elements such as
> World Wide Web pages, in whole, in part or in combination. having
> relevance to subject matter of interest.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to enable users to interactively develop databases of preferred information

elements. The Examiner does not logically explain how developing databases would lead

one skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of determining

whether any of the one or more objects relates to a list of favored and non-favored

sources into Conklin et al.'s information retrieval system 100 that identifies and ranks

query feedback terms to facilitate a user in re-formatting a new query (Conklin et al.,

Abstract).

At col. 5, lines 24-29, Chakrabarti et al. discloses:

> Yet further, it is an object of the present invention to provide a method for
> improving the determination of relevance amongst related information

> elements such as Web pages, considered in whole, in part, or in
> combination, by the filtering to reduce the effects of spurious factors
> which adversely effect accuracy.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to provide a method for improving the determination of relevance among

related information elements. The Examiner does not logically explain how improving

the relevance among related information elements would lead one skilled in the art to

incorporate Chakrabarti et al.'s alleged teaching of determining whether any of the one or

more objects relates to a list of favored and non-favored sources into Conklin et al.'s

information retrieval system 100 that identifies and ranks query feedback terms to

facilitate a user in re-formatting a new query (Conklin et al., Abstract).

Moreover, the mere fact that one reference allegedly provides some missing

disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as

to why it would have been obvious to combine the references. Appellants assert that it

would not have been obvious to combine these two references without the benefit of

Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why

one skilled in the art would have realistically been motivated to combine the teachings of

Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

For at least the foregoing reasons and for the reasons given above with respect to

claim 1, from which claim 3 depends, Appellants submit that the rejection of claim 3

under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper.

Accordingly, Appellants request that the rejection be reversed.

4.   Claim 4

Claim 4 depends from claim 3. Therefore, this claim is patentable over Conklin et al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 3. Moreover, this claim recites additional features not disclosed or suggested by Conklin et al. and Chakrabarti et al.

Claim 4 recites that the ranking includes determining a score for those objects that are unrelated to the list of favored and non-favored sources using a first group of parameters, determining a score for those objects that relate to the list of favored or non-favored sources using the first group of parameters and an editorial opinion parameter, and ranking the objects based on the determined scores. Conklin et al. and Chakrabarti et al., whether taken alone or in any reasonable combination, do not disclose or suggest these features.

For example, Conklin et al. and Chakrabarti et al. do not disclose determining a score for those objects that relate to the list of favored or non-favored sources using a first group of parameters and an editorial opinion parameter. The Examiner admits that Conklin et al. does not disclose this feature and relies on the authority weight disclosed at col. 19, lines 30-49, of Chakrabarti et al. for allegedly disclosing an editorial opinion parameter (Office Action, pages 5-6). This section of Chakrabarti et al. does not disclose or suggest determining a score for those objects that relate to the list of favored or non-favored sources using a first group of parameters and an editorial opinion parameter, as required by claim 4.

At col. 19, lines 30-49, Chakrabarti et al. discloses:

3. Analyze the resulting eigenvectors to facilitate ranking and/or
partitioning of the set of entities.

In the case where relevant sources are to be identified, step 2 above
described proceeds as follows.

Let "S" be the root set and "E" be the set of links, between pages in the
root set. Further, let m=|E|, where m refers to links i; and n=|S|, where n
refers to pages j. Additionally, let "A" be an m x n matrix representing the
weight of each link in connection with hub calculations, and "B" be an n x
m matrix representing the weight of each link, in connection with authority
calculations, and where the contents of A and B are as defined below. Still
further, let a be an n vector representing the authority value of each of the
n pages. Additionally, let h be an m vector representing the hub value of
each of the m links. With the above in mind, each round of iteration
comprises the following three steps:

1. Update authority scores: a←Bh;

2. Update hub scores: h←Aa; and

3. Re-pack; i.e., re-compute authority; i.e., a.

While the Examiner appears to be correct that this section of Chakrabarti et al. discloses

an authority weight, this section of Chakrabarti et al. in no way discloses or suggests that

the authority weight that is associated with a link is an editorial opinion parameter. The

Examiner has not pointed to any section of Chakrabarti et al. that indicates that the

authority weight parameter is editorial in nature or an opinion. The disclosure of

Chakrabarti et al. in no way supports the Examiner's allegation that the authority weight is

equivalent to an editorial opinion parameter.

Even assuming, for the sake of argument, that one skilled in the art could

reasonably construe <u>Chakrabarti et al.</u> to disclose determining a score for those objects

that relate to the list of favored or non-favored sources using a first group of parameters

and an editorial opinion parameter, Appellants submit that one skilled in the art would not

have been motivated to combine this alleged teaching of <u>Chakrabarti et al.</u> with the

disclosure of <u>Conklin et al.</u>, absent impermissible hindsight. With respect to motivation,

the Examiner alleges that "[i]t would have been obvious ... to modify the teachings of

Conklin with the teachings of Chakrabarti ... with the motivation to enable the user to ...

search conveniently and efficiently to identify information elements on the World Wide

Web pages... having relevance to subject matter of interest (Chakrabarti, col 5, lines 50-

56) and also for improving the determination of relevance amongst the related

information elements as the Web pages considered as a whole, in part, or in combination

by filtering to reduce the effects of spurious factors which adversely effect accuracy

(Chakrabarti, col 5, lines 24-29)" (Office Action, pages 4-5). Appellants disagree.

Initially, Appellants note that the alleged motivation (i.e., to enable a user to

search conveniently and efficiently and to improve the determination of relevance

amongst related information elements) is merely a conclusory statement regarding alleged

benefits of the combination. Such motivation does not satisfy the requirements of 35

U.S.C. § 103. In this respect, Appellants again rely upon <u>In re Deuel</u>, 51 F.3d 1552, 34

USPQ2d 1210 (Fed. Cir. 1995), where it was held that <u>generalizations</u> do <u>not</u> establish

the realistic <u>motivation</u> to modify a specific reference in a specific manner to arrive at a

specifically claimed invention.

Secondly, the portions of <u>Chakrabarti et al.</u> on which the Examiner relies

(i.e., col. 5, lines 50-56 and 24-29) also provide no support for the combination.

At col. 5, lines 50-56, Chakrabarti et al. discloses:

> Yet additionally, it is also an object of the present invention to provide a
> method for enabling users to interactively develop databases of preferred
> information elements, which databases may be subsequently searched
> conveniently and efficiently to identify information elements such as
> World Wide Web pages, in whole, in part or in combination. having
> relevance to subject matter of interest.

This section of <u>Chakrabarti et al.</u> discloses that an object of the <u>Chakrabarti et al.</u>

invention is to enable users to interactively develop databases of preferred information

elements. The Examiner does not logically explain how developing databases would lead

one skilled in the art to incorporate <u>Chakrabarti et al.</u>'s alleged teaching of determining a

score for those objects that relate to the list of favored or non-favored sources using a first

group of parameters and an editorial opinion parameter into <u>Conklin et al.</u>'s information

retrieval system 100 that identifies and ranks query feedback terms to facilitate a user in

re-formatting a new query (<u>Conklin et al.</u>, Abstract).

At col. 5, lines 24-29, <u>Chakrabarti et al.</u> discloses:

> Yet further, it is an object of the present invention to provide a method for
> improving the determination of relevance amongst related information
> elements such as Web pages, considered in whole, in part, or in
> combination, by the filtering to reduce the effects of spurious factors
> which adversely effect accuracy.

This section of <u>Chakrabarti et al.</u> discloses that an object of the <u>Chakrabarti et al.</u>

invention is to provide a method for improving the determination of relevance among

related information elements. The Examiner does not logically explain how improving

the relevance among related information elements would lead one skilled in the art to

incorporate Chakrabarti et al.'s alleged teaching of determining a score for those objects

that relate to the list of favored or non-favored sources using the first group of parameters

and an editorial opinion parameter into Conklin et al.'s information retrieval system 100

that identifies and ranks query feedback terms to facilitate a user in re-formatting a new

query (Conklin et al., Abstract).

Moreover, the mere fact that one reference allegedly provides some missing

disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as

to why it would have been obvious to combine the references. Appellants assert that it

would not have been obvious to combine these two references without the benefit of

Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why

one skilled in the art would have realistically been motivated to combine the teachings of

Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

For at least the foregoing reasons and for the reasons given above with respect to

claim 3, from which claim 4 depends, Appellants submit that the rejection of claim 4

under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper.

Accordingly, Appellants request that the rejection be reversed.

5.   Claim 5

Claim 5 depends from claim 4. Therefore, this claim is patentable over Conklin et

al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 4. Moreover, this claim recites an

additional feature not disclosed or suggested by <u>Conklin et al.</u> and <u>Chakrabarti et al.</u>

Claim 5 recites that the editorial opinion parameter causes the rank of those

objects corresponding to favored sources to be increased and a rank of those objects

corresponding to non-favored sources to be decreased. The Examiner admits that

<u>Conklin et al.</u> does not disclose this feature and relies on col. 20, line 22-51, and col. 19,

line 58, to col. 20, line 2, of <u>Chakrabarti et al.</u> for allegedly disclosing this feature (Office

Action, page 7). Appellants submit that these sections of do not disclose or suggest the

features of claim 5.

At the outset, Appellants note that since, as set forth above with respect to claim

4, <u>Chakrabarti et al.</u> does not disclose an editorial opinion parameter, <u>Chakrabarti et al.</u>

cannot disclose an editorial opinion parameter that causes the rank of those objects

corresponding to favored sources to be increased and a rank of those objects

corresponding to non-favored sources to be decreased, as required by claim 5.

Nevertheless, at col. 20, lines 22-51, <u>Chakrabarti et al.</u> discloses:

> Subsequently, and yet further, where copied pages are found; i.e., where
> replication relevance is present, and all but one deemed the original is
> eliminated, to reflect the significance of the page having been copied, the
> weight of the links for the retained page, as described above, are increased
> by a factor equal to the log of the number of copies. Further, this
> replication relevance is applied as a multiplication factor to the link weight
> as enhanced by any other relevance factor.

> Still further, and thereafter, where example pages are used, because of the
> importance of respective example pages, the weight of the links within an
> example page are likewise increased based on example relevance thereby

deemed present. Particularly, the weights of all links within example hub
pages are increased by a multiplication factor of 1.1. In the case of
example authority pages, the weight of links within the page are increased
by first identifying a page region as defined by the occurrence of a page
and/or section heading, and/or ruled page line; page and section headings
and ruled lines being defined in conventional HTML fashion.
Subsequently, within the identified region, a window of 25 links forward
and 25 links backward in the page from the subject link is placed about a
subject link. Thereafter, if there is one example authority link within the
window, a multiplication factor of 1.1 is applied to the weight of the
subject link. Further, if there are two or more example authority links
within the window, a multiplication factor of 1.5 is applied to the weight
of the subject link. However, if no example authority links are present
within the window, no multiplication factor is applied to the weight of the
subject link.

This section of Chakrabarti et al. discloses increasing the weight of a link when copied

pages are found, increasing the weight of a link when the link is within an example page,

and increasing the weight of a link if one or more example authority pages are found

within an identified page region. This section of Chakrabarti et al. in no way discloses or

suggests that the link weight is an editorial opinion parameter. The Examiner has not

pointed to any section of Chakrabarti et al. that indicates that the link weight parameter is

editorial in nature or an opinion. The disclosure of Chakrabarti et al. in no way supports

the Examiner's allegation that the link weight is equivalent to an editorial opinion

parameter.

At col. 19, line 58, to col. 20, line 2, Chakrabarti et al. discloses:

Particularly, and with regard to the contents of matrix $B=[b_{ji}]$, b_{ji} is the
weight of link i, which points to page j. Initially, b_{ji} is set to 1, the default
hub link weight, if link i points to page j, and is 0 otherwise. Thereafter,
hub link weight b_{ji} is increased if the link can be considered to have
additional relevance due to one or more of such factors as: being located in

>a page close to a search term; referred to as "context relevance", context
>relevance being additive for each occurrence of required proximity to a
>search term; or being copied multiple time; i.e., termed "replication
>relevance"; or being illustrative of a preferred link; termed "example
>relevance."

Similar to the section above, this section of Chakrabarti et al. discloses the increasing of

link weights. This section of Chakrabarti et al. in no way discloses or suggests that a link

weight is equivalent to an editorial opinion parameter or that the link weight is increased

based on an editorial opinion parameter.

Even assuming, for the sake of argument, that one skilled in the art could

reasonably construe Chakrabarti et al. to disclose an editorial opinion parameter that

causes the rank of those objects corresponding to favored sources to be increased and a

rank of those objects corresponding to non-favored sources to be decreased, Appellants

submit that one skilled in the art would not have been motivated to combine this alleged

teaching of Chakrabarti et al. with the disclosure of Conklin et al., absent impermissible

hindsight. With respect to motivation, the Examiner alleges that "[i]t would have been

obvious … to modify the teachings of Conklin with the teachings of Chakrabarti … with

the motivation to enable the user to … search conveniently and efficiently to identify

information elements on the World Wide Web pages… having relevance to subject

matter of interest (Chakrabarti, col 5, lines 50-56) and also for improving the

determination of relevance amongst the related information elements as the Web pages

considered as a whole, in part, or in combination by filtering to reduce the effects of

spurious factors which adversely effect accuracy (Chakrabarti, col 5, lines 24-29)" (Office

Action, pages 7). Appellants disagree.

Initially, Appellants note that the alleged motivation (i.e., to enable a user to search conveniently and efficiently and to improve the determination of relevance amongst related information elements) is merely a conclusory statement regarding alleged benefits of the combination. Such motivation does not satisfy the requirements of 35 U.S.C. § 103. In this respect, Appellants again rely upon In re Deuel, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995), wherein it was held that generalizations do not establish the realistic motivation to modify a specific reference in a specific manner to arrive at a specifically claimed invention.

Secondly, the portions of Chakrabarti et al. on which the Examiner relies (i.e., col. 5, lines 50-56 and 24-29) also provide no support for the combination. At col. 5, lines 50-56, Chakrabarti et al. discloses:

> Yet additionally, it is also an object of the present invention to provide a method for enabling users to interactively develop databases of preferred information elements, which databases may be subsequently searched conveniently and efficiently to identify information elements such as World Wide Web pages, in whole, in part or in combination. having relevance to subject matter of interest.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al. invention is to enable users to interactively develop databases of preferred information elements. The Examiner does not logically explain how developing databases would lead one skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of an editorial opinion parameter that causes the rank of those objects corresponding to favored sources

to be increased and a rank of those objects corresponding to non-favored sources to be

decreased into Conklin et al.'s information retrieval system 100 that identifies and ranks

query feedback terms to facilitate a user in re-formatting a new query (Conklin et al.,

Abstract).

At col. 5, lines 24-29, Chakrabarti et al. discloses:

> Yet further, it is an object of the present invention to provide a method for
> improving the determination of relevance amongst related information
> elements such as Web pages, considered in whole, in part, or in
> combination, by the filtering to reduce the effects of spurious factors
> which adversely effect accuracy.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to provide a method for improving the determination of relevance among

related information elements. The Examiner does not logically explain how improving

the relevance among related information elements would lead one skilled in the art to

incorporate Chakrabarti et al.'s alleged teaching of an editorial opinion parameter that

causes the rank of those objects corresponding to favored sources to be increased and a

rank of those objects corresponding to non-favored sources to be decreased into Conklin

et al.'s information retrieval system 100 that identifies and ranks query feedback terms to

facilitate a user in re-formatting a new query (Conklin et al., Abstract).

Moreover, the mere fact that one reference allegedly provides some missing

disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as

to why it would have been obvious to combine the references. Appellants assert that it

would not have been obvious to combine these two references without the benefit of

Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why

one skilled in the art would have realistically been motivated to combine the teachings of

Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

For at least the foregoing reasons and for the reasons given above with respect to

claim 4, from which claim 5 depends, Appellants submit that the rejection of claim 5

under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper.

Accordingly, Appellants request that the rejection be reversed.

6.   Claim 6

Claim 6 depends from claim 1. Therefore, this claim is patentable over Conklin et

al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 1. Moreover, this claim recites an

additional feature not disclosed or suggested by Conklin et al. and Chakrabarti et al.

Claim 6 recites that the determining whether a search query corresponds to at least

one query theme of a group of query themes includes determining whether the search

query corresponds to a query rule associated with each query theme. The Examiner relies

on col. 3, line 67, to col. 4, line 8, and col. 4, lines 37-38 and 51-64, of Conklin et al. for

allegedly disclosing this feature. Appellants submit that these sections of Conklin et al.

do not disclose or suggest the feature of claim 6.

At col. 3, line 66, to col. 4, line 8, Conklin et al. discloses:

In one embodiment, the query processing 175 processes theme queries and
text queries. For theme queries, the query processing 175 processes the
input user query to identify the thematic content of the query. Specifically,

> a content processing system 110 (FIG. 7) analyzes the words or terms in
> the query to generate a query theme vector. In general, the query theme
> vector presents a thematic profile of the content in the query. A further
> discussion of theme vectors is described more fully below in the section
> "Content Processing System."

This section of Conklin et al. discloses that, for theme queries, a content processing

system 110 analyzes the words or terms in the query to generate a theme vector. This

query content analysis is in no way related to determining whether the search query

corresponds to a query rule associated with each query theme. This section of Conklin et

al. does not disclose or suggest the above feature of claim 6. In fact, this section of

Conklin et al. does not disclose or suggest a query rule.

At col. 4, lines 33-38, Conklin et al. discloses:

> Although the query feedback of the present invention is described in
> conjunction with a system that identifies a document hit list, the invention
> may also be used in conjunction with a system that identifies any type of
> information that includes a plurality of topics responsive to the user query.

This section of Conklin et al. discloses that Conklin et al.'s query feedback system can be

used in conjunction with a system that identifies topics responsive to a user query. This

section of Conklin et al. does not disclose or suggest a query rule or determining whether

the search query corresponds to a query rule associated with each query theme.

Moreover, the Examiner does not explain how this section of Conklin et al. is in any way

related to the feature of Appellants' claim 6.

At col. 4, line 51-64, Conklin et al. discloses:

> Table 1 is an example document theme vector 160.

TABLE 1
Document Theme Vector
Document   Theme

Themes	Strength	Classification Category
$Theme_1$	190	(category$_a$)
$Theme_2$	110	None
$Theme_3$	70	(Category$_c$)
$Theme_4$	27	(Category$_d$)
.	.	.
.	.	.
.	.	.
$Theme_n$	8	(Category$_z$)

This section of Conklin et al. discloses a document theme vector. As illustrated in the above table, a document theme vector includes a list of document themes (Themes 1-N), a theme strength for each document theme, and a classification category for each document theme. Conklin et al. in no way discloses or suggests that these document themes are equivalent to query themes. Moreover, even assuming that one skilled in the art could reasonably construe Conklin et al.'s document themes to be equivalent to query themes, Conklin et al. in no way discloses or suggests that each of the document themes is associated with a query rule or determining whether a search query corresponds to a query rule associated with a document theme. The Examiner has not pointed to any section of Conklin et al. that supports this allegation.

For at least the foregoing reasons and for the reasons given above with respect to claim 1, from which claim 6 depends, Appellants submit that the rejection of claim 6 under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper. Accordingly, Appellants request that the rejection be reversed.

7.   **Claim 11**

Independent claim 11 is directed to a method for determining an editorial opinion

parameter for use in ranking search results. The method includes developing one or more

query themes, identifying, for each query theme, a first set of objects as favored objects,

identifying, for each query theme, a second set of objects as non-favored objects, and

determining an editorial opinion parameter for each of the objects in the first and second

sets. Conklin et al. and Chakrabarti et al., whether taken alone or in any reasonable

combination, do not disclose or suggest this combination of features.

For example, Conklin et al. and Chakrabarti et al. do not disclose identifying, for

each query theme, a first set of objects as favored objects. The Examiner relies on

Conklin et al. for allegedly disclosing identifying for each query theme and on

Chakrabarti et al. for allegedly disclosing a first set of objects as favored objects (Office

Action, page 13). The Examiner's attempt to reconstruct the above feature of claim 11 by

illogically breaking the feature into parts is clearly impermissible. Put another way,

instead of addressing the entire feature of claim 11, the Examiner breaks the feature into

parts and points to portions of Conklin et al. and portions of Chakrabarti et al. for

allegedly disclosing the individual parts. Such piecemeal examination of this feature of

Appellants' claim 11 is clearly impermissible.

The Examiner alleges, with respect to claim 11, that query themes are equivalent

to Conklin et al.'s theme queries (Office Action, page 13). The Examiner also alleges that

Chakrabarti et al.'s authority and hub scores are equivalent to the recited first set of

favored objects (Office Action, page 13). Appellants respectfully disagree.

First, one skilled in the art would readily recognize that a query theme (a theme),

which is recited in claim 11, is not the same as a theme query (words or phrases used to

conduct a search). The Examiner does not point to any section of Conklin et al. that

supports the allegation that a query is the same as a theme. Moreover, the Examiner does

not logically explain how a query can be interpreted to be equivalent to a theme.

Appellants submit that the Examiner has clearly misinterpreted the language of claim 11.

Secondly, even assuming for the sake of argument, that one skilled in the art could

reasonably construe Chakrabarti et al.'s authority and hub scores to correspond to a first

set of favored objects (as set forth above, Appellants do not agree with this interpretation)

or Conklin et al.'s theme queries to correspond to query themes, Appellants submit that

the Examiner does not logically explain why one skilled in the art would seek to modify

Conklin et al.'s system to identify a group of favored sources for each theme query. With

respect to motivation, the Examiner alleges "[i]t would have been obvious to ... modify

the teachings of Conklin with the teachings of Chakrabarti to include an editorial opinion

parameter for use in ranking search results, a first set of objects as favored; a second set

of objects as non-favored objects; and determining an editorial parameter for each of the

objects in the first and second sets with the motivation to enable the user to ... search

conveniently and efficiently to identify information elements on the World Wide Web

pages... having relevance to subject matter of interest (Chakrabarti, col 5, lines 50-56)

and also for improving the determination of relevance amongst the related information

elements as the Web pages considered in whole, in part, or in combination by filtering to

reduce the effects of spurious factors which adversely effect accuracy (Chakrabarti, col 5,

lines 24-29)" (Office Action, page 14). Appellants disagree.

Initially, Appellants note that the alleged motivation (i.e., to enable a user to

search conveniently and efficiently and to improve the determination of relevance

amongst related information elements) is merely a conclusory statement regarding alleged

benefits of the combination. Such motivation does not satisfy the requirements of 35

U.S.C. § 103. In this respect, Appellants rely upon In re Deuel, 51 F.3d 1552, 34

USPQ2d 1210 (Fed. Cir. 1995), wherein it was held that generalizations do not establish

the realistic motivation to modify a specific reference in a specific manner to arrive at a

specifically claimed invention.

Secondly, the portions of Chakrabarti et al. on which the Examiner relies

(i.e., col. 5, lines 50-56 and 24-29) also provide no support for the combination.

At col. 5, lines 50-56, Chakrabarti et al. discloses:

> Yet additionally, it is also an object of the present invention to provide a
> method for enabling users to interactively develop databases of preferred
> information elements, which databases may be subsequently searched
> conveniently and efficiently to identify information elements such as
> World Wide Web pages, in whole, in part or in combination. having
> relevance to subject matter of interest.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to enable users to interactively develop databases of preferred information

elements. The Examiner does not logically explain how developing databases would lead

one skilled in the art to incorporate <u>Chakrabarti et al.</u>'s alleged teaching of favored objects

into <u>Conklin et al.</u>'s information retrieval system 100 that identifies and ranks query

feedback terms to facilitate a user in re-formatting a new query (<u>Conklin et al.</u>, Abstract).

Moreover, the Examiner does not explain and this section of <u>Chakrabarti et al.</u> does not

disclose why one would seek to modify the very operation of <u>Conklin et al.</u>'s system,

which is directed to ranking query feedback terms to facilitate a user in re-formatting a

new query (<u>Conklin et al.</u>, Abstract), to include authority and hub scores, which represent

the degree of relevance of authority and hub pages, respectively (Chakrabarti et al., col. 8,

lines 36-45).

At col. 5, lines 24-29, <u>Chakrabarti et al.</u> discloses:

> Yet further, it is an object of the present invention to provide a method for
> improving the determination of relevance amongst related information
> elements such as Web pages, considered in whole, in part, or in
> combination, by the filtering to reduce the effects of spurious factors
> which adversely effect accuracy.

This section of <u>Chakrabarti et al.</u> discloses that an object of the <u>Chakrabarti et al.</u>

invention is to provide a method for improving the determination of relevance among

related information elements. The Examiner does not logically explain how this section

of <u>Chakrabarti et al.</u>, which merely recites an alleged object of the <u>Chakrabarti et al.</u>

system, would lead one skilled in the art to incorporate <u>Chakrabarti et al.</u>'s alleged

teaching of favored objects into <u>Conklin et al.</u>'s information retrieval system 100 that

identifies and ranks query feedback terms to facilitate a user in re-formatting a new query

(<u>Conklin et al.</u>, Abstract). Moreover, the Examiner does not explain and this section of

Chakrabarti et al. does not disclose why one would seek to modify the very operation of

Conklin et al.'s system, which is directed to ranking query feedback terms to facilitate a

user in re-formatting a new query (Conklin et al., Abstract), to include authority and hub

scores, which represent the degree of relevance of authority and hub pages, respectively

(Chakrabarti et al., col. 8, lines 36-45).

Appellants note that the mere fact that one reference allegedly provides some

missing disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C.

§ 103 as to why it would have been obvious to combine the references. Appellants assert

that it would not have been obvious to combine these two references without the benefit

of Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why

one skilled in the art would have realistically been motivated to combine the teachings of

Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

Conklin et al. and Chakrabarti et al. do not further disclose identifying, for each

query theme, a second set of objects as non-favored objects, as also recited in claim 11.

The Examiner relies on Conklin et al. for allegedly disclosing identifying for each query

theme and on Chakrabarti et al. for allegedly disclosing a second set of objects as non-

favored objects (Office Action, pages 13 and 14). The Examiner's attempt to reconstruct

the above feature of claim 11 by illogically breaking the feature into parts is clearly

impermissible. Put another way, instead of addressing the entire feature of claim 11, the

Examiner breaks the feature into parts and points to portions of Conklin et al. and

portions of Chakrabarti et al. for allegedly disclosing the individual parts. Such

piecemeal examination of this feature of Appellants' claim 11 is clearly impermissible.

The Examiner alleges, with respect to claim 11, that recited query themes are equivalent to Conklin et al.'s theme queries (Office Action, page 13). The Examiner also alleges that Chakrabarti et al.'s stop pages are equivalent to the recited second set of objects as non-favored objects (Office Action, pages 13-14). Appellants respectfully disagree.

First, as set forth above, one skilled in the art would readily recognize that a query theme (a theme), which is recited in claim 11, is not the same as a theme query (words or phrases used to conduct a search). The Examiner does not point to any section of Conklin et al. that supports the allegation that a query is the same as a theme. Moreover, the Examiner does not logically explain how a query can be interpreted to be equivalent to a theme. Appellants submit that the Examiner has clearly misinterpreted the language of claim 11.

Secondly, even assuming for the sake of argument, that one skilled in the art could reasonably construe Chakrabarti et al.'s stop pages to correspond to a second set of non-favored objects or Conklin et al.'s theme queries to correspond to query themes, Appellants submit that the Examiner does not logically explain why one skilled in the art would seek to modify Conklin et al.'s system to identify a group of non-favored sources for each theme query. With respect to motivation, the Examiner alleges "[i]t would have been obvious to ... modify the teachings of Conklin with the teachings of Chakrabarti to include an editorial opinion parameter for use in ranking search results, a first set of

objects as favored; a second set of objects as non-favored objects; and determining an

editorial parameter for each of the objects in the first and second sets with the motivation

to enable the user to ... search conveniently and efficiently to identify information

elements on the World Wide Web pages... having relevance to subject matter of interest

(Chakrabarti, col 5, lines 50-56) and also for improving the determination of relevance

amongst the related information elements as the Web pages considered in whole, in part,

or in combination by filtering to reduce the effects of spurious factors which adversely

effect accuracy (Chakrabarti, col 5, lines 24-29)" (Office Action, page 14). Appellants

disagree.

As set forth above, the alleged motivation (i.e., to enable a user to search

conveniently and efficiently and to improve the determination of relevance amongst

related information elements) is merely a conclusory statement regarding alleged benefits

of the combination. Such motivation does not satisfy the requirements of 35 U.S.C. §

103. In re Deuel, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995).

Secondly, the portions of Chakrabarti et al. on which the Examiner relies (i.e., col.

5, lines 50-56 and 24-29) also provide no support for the combination. Col. 5, lines 50-

56, of Chakrabarti et al. is reproduced above. This section of Chakrabarti et al. discloses

that an object of the Chakrabarti et al. invention is to enable users to interactively develop

databases of preferred information elements. The Examiner does not logically explain

how developing databases would lead one skilled in the art to incorporate Chakrabarti et

al.'s alleged teaching of non-favored objects into Conklin et al.'s information retrieval

system 100 that identifies and ranks query feedback terms to facilitate a user in re-

formatting a new query (Conklin et al., Abstract). Moreover, the Examiner does not

explain and this section of Chakrabarti et al. does not disclose why one would seek to

modify the very operation of Conklin et al.'s system, which is directed to ranking query

feedback terms to facilitate a user in re-formatting a new query (Conklin et al., Abstract),

to include stop pages, which identify pages that are to be eliminated from a set of pages

obtained in response to a query (Chakrabarti et al., col. 7, line 66, to col. 8, line 10).

Col. 5, lines 24-29, of Chakrabarti et al. is reproduced above. This section of

Chakrabarti et al. discloses that an object of the Chakrabarti et al. invention is to provide

a method for improving the determination of relevance among related information

elements. The Examiner does not logically explain how this section of Chakrabarti et al.,

which merely recites an alleged object of the Chakrabarti et al. system, would lead one

skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of non-favored

objects into Conklin et al.'s information retrieval system 100 that identifies and ranks

query feedback terms to facilitate a user in re-formatting a new query (Conklin et al.,

Abstract). Moreover, the Examiner does not explain and this section of Chakrabarti et al.

does not disclose why one would seek to modify the very operation of Conklin et al.'s

system, which is directed to ranking query feedback terms to facilitate a user in re-

formatting a new query (Conklin et al., Abstract), to include stop pages, which identify

pages that are to be eliminated from a set of pages obtained in response to a query

(Chakrabarti et al., col. 7, line 66, to col. 8, line 10).

Appellants note that the mere fact that one reference allegedly provides some missing disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as to why it would have been obvious to combine the references. Appellants assert that it would not have been obvious to combine these two references without the benefit of Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why one skilled in the art would have realistically been motivated to combine the teachings of Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

Conklin et al. and Chakrabarti et al. do not further disclose determining an editorial opinion parameter for each of the objects in the first and second sets, as also recited in claim 11. The Examiner admits that Conklin et al. does not discloses this feature and relies on col. 19, lines 30-49, of Chakrabarti et al. for allegedly disclosing this feature of claim 11 (Office Action, pages 13 and 14). The Examiner further alleges that Chakrabarti et al.'s authority weight corresponds to the recited editorial opinion parameter (Office Action, page 14). Appellants disagree.

At col. 19, lines 30-49, Chakrabarti et al. discloses:

3. Analyze the resulting eigenvectors to facilitate ranking and/or partitioning of the set of entities.

In the case where relevant sources are to be identified, step 2 above described proceeds as follows.

Let "S" be the root set and "E" be the set of links, between pages in the root set. Further, let $m=|E|$, where m refers to links i; and $n=|S|$, where n refers to pages j. Additionally, let "A" be an m x n matrix representing the weight of each link in connection with hub calculations, and "B" be an n x m matrix representing the weight of each link, in connection with authority

calculations, and where the contents of A and B are as defined below. Still further, let a be an n vector representing the authority value of each of the n pages. Additionally, let h be an m vector representing the hub value of each of the m links. With the above in mind, each round of iteration comprises the following three steps:

1. Update authority scores: $a \leftarrow Bh$;

2. Update hub scores: $h \leftarrow Aa$; and

3. Re-pack; i.e., re-compute authority; i.e., a.

While the Examiner appears to be correct that this section of Chakrabarti et al. discloses an authority weight, this section of Chakrabarti et al. in no way discloses or suggests that the authority weight that is associated with a link is an editorial opinion parameter. The Examiner has not pointed to any section of Chakrabarti et al. that indicates that the authority weight parameter is editorial in nature or an opinion. The disclosure of Chakrabarti et al. in no way supports the Examiner's allegation that the authority weight is equivalent to an editorial opinion parameter.

Moreover, even assuming, for the sake of argument, that one skilled in the art could reasonably construe Chakrabarti et al.'s authority weight to be equivalent to an editorial opinion parameter, Chakrabarti et al. does not disclose that the authority weight is used to weight stop pages, which the Examiner alleges corresponds to the recited second set of non-favored objects. The Examiner has not pointed to any section of Chakrabarit et al. that supports this allegation or logically explained why one skilled in the art would have been motivated to modify the operation of the Chakrabarti et al. system so that authority weight affects stop pages.

In addition, even assuming, for the sake of argument, that one skilled in the art

could reasonably construe Chakrabarti et al. to disclose determining an editorial opinion

parameter for each of the objects in the first and second sets (something that the

Examiner has failed to establish), Appellants submit that one skilled in the art would not

have been motivated to combine this alleged teaching of Chakrabarti et al. with the

disclosure of Conklin et al., absent impermissible hindsight.

With respect to motivation, the Examiner alleges "[i]t would have been obvious to

... modify the teachings of Conklin with the teachings of Chakrabarti to include an

editorial opinion parameter for use in ranking search results, a first set of objects as

favored; a second set of objects as non-favored objects; and determining an editorial

parameter for each of the objects in the first and second sets with the motivation to enable

the user to ... search conveniently and efficiently to identify information elements on the

World Wide Web pages... having relevance to subject matter of interest (Chakrabarti, col

5, lines 50-56) and also for improving the determination of relevance amongst the related

information elements as the Web pages considered in whole, in part, or in combination by

filtering to reduce the effects of spurious factors which adversely effect accuracy

(Chakrabarti, col 5, lines 24-29)" (Office Action, page 14). Appellants disagree.

As set forth above, the alleged motivation (i.e., to enable a user to search

conveniently and efficiently and to improve the determination of relevance among related

information elements) is merely a conclusory statement regarding alleged benefits of the

combination. Such motivation does not satisfy the requirements of 35 U.S.C. § 103. In

re Deuel, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995).

Secondly, the portions of Chakrabarti et al. on which the Examiner relies (i.e., col.

5, lines 50-56 and 24-29) also provide no support for the combination. Col. 5, lines 50-

56, of Chakrabarti et al. is reproduced above. This section of Chakrabarti et al. discloses

that an object of the Chakrabarti et al. invention is to enable users to interactively develop

databases of preferred information elements. The Examiner does not logically explain

how developing databases would lead one skilled in the art to incorporate Chakrabarti et

al.'s alleged teaching of determining an editorial opinion parameter for each object in the

first and second sets into Conklin et al.'s information retrieval system 100 that identifies

and ranks query feedback terms to facilitate a user in re-formatting a new query (Conklin

et al., Abstract). Moreover, the Examiner does not explain and this section of

Chakrabarti et al. does not disclose why one would seek to modify the very operation of

Conklin et al.'s system, which is directed to ranking query feedback terms to facilitate a

user in re-formatting a new query (Conklin et al., Abstract), to include this recited act.

Col. 5, lines 24-29, of Chakrabarti et al. is reproduced above. This section of

Chakrabarti et al. discloses that an object of the Chakrabarti et al. invention is to provide

a method for improving the determination of relevance among related information

elements. The Examiner does not logically explain how this section of Chakrabarti et al.,

which merely recites an alleged object of the Chakrabarti et al. system, would lead one

skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of determining an

editorial opinion parameter for each object in the first and second sets into Conklin et al.'s

information retrieval system 100 that identifies and ranks query feedback terms to facilitate a user in re-formatting a new query (Conklin et al., Abstract). Moreover, the Examiner does not explain and this section of Chakrabarti et al. does not disclose why one would seek to modify the very operation of Conklin et al.'s system, which is directed to ranking query feedback terms to facilitate a user in re-formatting a new query (Conklin et al., Abstract), to include this recited act of claim 11.

The mere fact that one reference allegedly provides some missing disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as to why it would have been obvious to combine the references. Appellants assert that it would not have been obvious to combine these two references without the benefit of Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why one skilled in the art would have realistically been motivated to combine the teachings of Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

For at least the foregoing reasons, Appellants submit that the rejection of claim 11 under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper. Accordingly, Appellants request that the rejection be reversed.

8. Claim 12

Claim 12 depends from claim 11. Therefore, this claim is patentable over Conklin et al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at least the reasons given above with respect to claim 11. Moreover, this claim recites an additional feature not disclosed or suggested by Conklin et al. and Chakrabarti et al.

Claim 12 recites determining, for each query theme, one or more rules for determining whether a search query satisfies the respective query theme. The Examiner relies on col. 3, line 67, to col. 4, line 8, col. 4, lines 37-38 and 51-64, col. 6, lines 29-46, and col. 14, lines 14-34, of <u>Conklin et al.</u> for allegedly disclosing this feature. Appellants submit that these sections of <u>Conklin et al.</u> do not disclose or suggest the feature of claim 12.

At col. 3, line 66, to col. 4, line 8, <u>Conklin et al.</u> discloses:

> In one embodiment, the query processing 175 processes theme queries and text queries. For theme queries, the query processing 175 processes the input user query to identify the thematic content of the query. Specifically, a content processing system 110 (FIG. 7) analyzes the words or terms in the query to generate a query theme vector. In general, the query theme vector presents a thematic profile of the content in the query. A further discussion of theme vectors is described more fully below in the section "Content Processing System."

This section of <u>Conklin et al.</u> discloses that, for theme queries, a content processing system 110 analyzes the words or terms in the query to generate a theme vector. This query content analysis is in no way related to determining, for each query theme, one or more rules for determining whether a search query satisfies the respective query theme, as required by claim 12. In fact, this section of <u>Conklin et al.</u> does not disclose or suggest a rule.

At col. 4, lines 33-38, <u>Conklin et al.</u> discloses:

> Although the query feedback of the present invention is described in conjunction with a system that identifies a document hit list, the invention may also be used in conjunction with a system that identifies any type of information that includes a plurality of topics responsive to the user query.

This section of <u>Conklin et al.</u> discloses that <u>Conklin et al.</u>'s query feedback system can be used in conjunction with a system that identifies topics responsive to a user query. This section of <u>Conklin et al.</u> does not disclose or suggest a rule or determining, for each query theme, one or more rules for determining whether a search query satisfies the respective query theme. Moreover, the Examiner does not explain how this section of <u>Conklin et al.</u> is in any way related to the feature of Appellants' claim 12.

At col. 4, line 51-64, <u>Conklin et al.</u> discloses:

Table 1 is an example document theme vector 160.

TABLE 1
Document Theme Vector

Document Themes	Theme Strength	Classification Category
$Theme_1$	190	$(category_a)$
$Theme_2$	110	None
$Theme_3$	70	$(Category_c)$
$Theme_4$	27	$(Category_d)$
.	.	.
.	.	.
.	.	.
$Theme_n$	8	$(Category_z)$

This section of <u>Conklin et al.</u> discloses a document theme vector. As illustrated in the above table, a document theme vector includes a list of document themes (Themes 1-N), a theme strength for each document theme, and a classification category for each document theme. As set forth above with respect to claim 11, the Examiner alleges that <u>Conklin et al.</u>'s theme query corresponds to the recited query theme. With this interpretation in mind, this section of <u>Conklin et al.</u> does not mention theme queries and

in no way discloses or suggests that the document themes are equivalent to theme queries.

Moreover, this section of Conklin et al. does not disclose or suggest a rule. Therefore,

this section of Conklin et al. cannot disclose determining, for each query theme, one or

more rules for determining whether a search query satisfies the respective query theme, as

required by claim 12.

At col. 6, lines 29-46, Conklin et al. discloses:

Due to the normalization processing performed as part of the content
processing (FIG. 7), the words/phrases for the themes are in the same form
as words/phrases of the categories in the knowledge base.

To identify a focal category, the information retrieval system 100 identifies
one or more clusters of themes, as they are linked in the knowledge base
155, as shown in block 232 of FIG. 2. For the information retrieval system
100 shown in FIG. 1, the "clustering" of themes or topics is performed by
the cluster analysis 190. The arrangement of categories or concepts in the
knowledge base represent semantic, linguistic or usage relationships
among the concepts of an ontology. Thus, when the themes are mapped to
categories of the knowledge base, the categories identified reflect a
semantic, linguistic or usage association among the themes. These
associations from the knowledge base are utilized to rank query feedback
terminology.

This section of Conklin et al. discloses the clustering of themes or topics, the mapping of

themes to categories of a knowledge base, and the use of the knowledge base to rank

query feedback terms. This section of Conklin et al. in no way discloses or suggests

determining, for each query theme, one or more rules for determining whether a search

query satisfies the respective query theme, as required by claim 12.

At col. 14, lines 14-34, Conklin et al. discloses:

FIG. 7 is a block diagram illustrating one embodiment for a content

> processing system. In general, the content processing system 110 analyzes
> words and phrases to identify the thematic content. For example, the
> content processing system 110 analyzes the document set 130 and
> generates the document theme vector 160. For this embodiment, the
> content processing system 110 includes a linguistic engine 700, a
> normalization processing 120, a theme vector processor 750, and a
> morphology section 770. The linguistic engine 700 receives, as input, the
> document set 130, and generates, as output, the structured output 710. The
> linguistic engine 700, which includes a grammar parser and a theme
> parser, processes the document set 130 by analyzing the grammatical or
> contextual aspects of each document, as well as analyzing the stylistic and
> thematic attributes of each document. Specifically, the linguistic engine
> 700 generates, as part of the structured output 710, contextual tags 720,
> thematic tags 730, and stylistic tags 735 that characterize each document.
> Furthermore, the linguistic engine extracts topics and content carrying
> words 737, through use of the thematic tags 730, for each sentence in the
> documents.

This section of Conklin et al. discloses generating document theme vector from the words

and phrases in the document. This section of Conklin et al. in no way discloses or

suggests determining, for each query theme, one or more rules for determining whether a

search query satisfies the respective query theme, as required by claim 12.

For at least the foregoing reasons and for the reasons given above with respect to

claim 11, from which claim 12 depends, Appellants submit that the rejection of claim 12

under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper.

Accordingly, Appellants request that the rejection be reversed.

9.   **Claim 13**

Claim 13 depends from claim 11. Therefore, this claim is patentable over Conklin

et al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 11. Moreover, this claim recites an

additional feature not disclosed or suggested by Conklin et al. and Chakrabarti et al.

Claim 13 recites determining, for each query theme, one or more topics for

determining whether a search query satisfies the respective query theme. The Examiner

relies on col. 3, line 67, to col. 4, line 8, of Conklin et al. for allegedly disclosing this

feature (Office Action, page 15). This section of Conklin et al. does not disclose or

suggest the feature of claim 13.

At col. 3, line 66, to col. 4, line 8, Conklin et al. discloses:

> In one embodiment, the query processing 175 processes theme queries and
> text queries. For theme queries, the query processing 175 processes the
> input user query to identify the thematic content of the query. Specifically,
> a content processing system 110 (FIG. 7) analyzes the words or terms in
> the query to generate a query theme vector. In general, the query theme
> vector presents a thematic profile of the content in the query. A further
> discussion of theme vectors is described more fully below in the section
> "Content Processing System."

This section of Conklin et al. discloses the generation of a query theme vector based on

terms in a theme query. This section of Conklin et al. does not disclose or suggest,

however, determining, for each query theme, one or more topics for determining whether

a search query satisfies the respective query theme, as required by claim 13.

The Examiner alleges that Conklin et al.'s theme queries are equivalent to the

recited query theme (Office Action, page 15). Appellants disagree.

One skilled in the art would readily recognize that a query theme (a theme), which

is recited in claim 13, is not the same as a theme query (words or phrases used to conduct

a search). The Examiner does not point to any section of Conklin et al. that supports the

allegation that a query is the same as a theme. Moreover, the Examiner does not logically

explain how a query can be interpreted to be equivalent to a theme. Appellants submit

that the Examiner has clearly misinterpreted the language of claim 13.

Even assuming, for the sake of argument, that one skilled in the art could

reasonably construe a query theme to be the same as a theme query, Appellants submit

that the above section of Conklin et al., on which the Examiner relies for allegedly

disclosing the feature of claim 13, in no way discloses or suggests determining, for each

theme query, one or more topics for determining whether a search query satisfies the

respective theme query, as would be required by claim 13. Clearly, the Examiner's

interpretation of the language of claim 13 renders claim 13 nonsensical.

The Examiner also relies on col. 4, lines 37-38 and 51-64, of Conklin et al. for

allegedly disclosing the feature of claim 13. Appellants submit that these sections of

Conklin et al. in no way disclose or suggest the feature of claim 13.

At col. 4, lines 33-38, Conklin et al. discloses:

> Although the query feedback of the present invention is described in
> conjunction with a system that identifies a document hit list, the invention
> may also be used in conjunction with a system that identifies any type of
> information that includes a plurality of topics responsive to the user query.

This section of Conklin et al. discloses that topics may be identified in response to a

query. This section of Conklin et al. in no way discloses or suggests determining, for

each query theme, one or more topics for determining whether a search query satisfies the

respective query theme, as required by Appellants' claim 13.

At col. 4, line 51-64, <u>Conklin et al.</u> discloses:

Table 1 is an example document theme vector 160.

TABLE 1
Document Theme Vector

Document Themes	Theme Strength	Classification Category
Theme$_1$	190	(category$_a$)
Theme$_2$	110	None
Theme$_3$	70	(Category$_c$)
Theme$_4$	27	(Category$_d$)
.	.	.
.	.	.
.	.	.
Theme$_n$	8	(Category$_z$)

This section of <u>Conklin et al.</u> discloses a document theme vector. As illustrated in the above table, a document theme vector includes a list of document themes (Themes 1-N), a theme strength for each document theme, and a classification category for each document theme. As set forth above, the Examiner alleges that <u>Conklin et al.</u>'s theme queries correspond to the recited query themes (Office Action, page 15). With that interpretation in mind, this section of <u>Conklin et al.</u> in no way discloses or suggests determining, for each theme query, one or more topics for determining whether a search query satisfies the respective theme query. The Examiner has not pointed to any section of <u>Conklin et al.</u> that supports this allegation.

For at least the foregoing reasons and for the reasons given above with respect to claim 11, from which claim 13 depends, Appellants submit that the rejection of claim 13 under 35 U.S.C. § 103(a) based on <u>Conklin et al.</u> and <u>Chakrabarti et al.</u> is improper.

Accordingly, Appellants request that the rejection be reversed.

10. Claim 15

Claim 15 depends from claim 11. Therefore, this claim is patentable over Conklin

et al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 11. Moreover, this claim recites an

additional feature not disclosed or suggested by Conklin et al. and Chakrabarti et al.

Claim 15 recites that the first and second sets of objects are sets of web sites. The

Examiner relies on col. 1, line 57, to col. 2, line 17, of Conklin et al. for allegedly

disclosing this feature (Office Action, page 16). This section of Conklin et al. does not

disclose or suggest the feature of claim 15.

Col. 1, line 57, to col. 2, line 17, of Conklin et al. corresponds to the

background section of Conklin et al. and discloses:

> For a user seeking high precision and recall, the query process is typically
> a random iterative process. A user starts the process by issuing the initial
> query. If the number of documents in the information retrieval system is
> large (e.g., a few thousand), the hit-list due to the initial query does not
> represent the exact information the user intended to obtain. Thus, it is not
> just the non-ideal behavior of information retrieval systems responsible for
> the poor initial hit-lists, but the user also contributes to degradation of the
> system by introducing error. User error manifests itself in several ways.
> One way user error manifests itself is when the user does not know exactly
> what he/she is looking for, or the user has some idea what he/she is
> looking for but doesn't have all the information to specify a precise query.
> An example of this type of error is one where the user is looking for
> information on a particular brand of computer but does not remember the
> brand name. For this example, the user may start by querying for
> "computers." A second way user error manifests itself is when the user is
> looking for some information generally interesting to the user but can only
> relate this interest via a high level concept. An on-line world wide web

surfer is an example of such a user. For example, the user may wish to
conduct research on recent issues related to "Middle East", but does not
know the recent issues to search. For this example, if a user simply does a
search on "Middle East", then some documents relevant to the user, which
deal with current issues in the "petroleum industry", will not be retrieved.

This section of Conklin et al. discusses the problems with conventional information

retrieval systems. While this background section of Conklin et al. uses the phrase "world

wide web," this section of Conklin et al. does not disclose or suggest that Conklin et al.'s

information retrieval system 100, on which the Examiner relies as performing features

recited in Appellants' claim 11, identifies, for each query theme, a first set of web sites as

favored web sites and a second set of web sites as non-favored web sites. In fact, this

section of Conklin et al. in no way relates to Conklin et al.'s information retrieval system

100, but is instead directed to conventional information retrieval systems. The Examiner

has not pointed to any section of Conklin et al. that discloses that this conventional

information retrieval system, described in the above section of Conklin et al., develops

one or more query themes, identifies, for each query theme, a first set of web sites as

favored web sites and a second set of web sites as non-favored web sites, as required by

claim 15. Moreover, as set forth above with respect to claim 11, the Examiner admits

that Conklin et al. does not disclose a first set of objects as favored objects and a second

set of objects as non-favored objects (Office Action, page 13). Therefore, it is unclear as

to how the Examiner can now rely on Conklin et al. for disclosing a feature that the

Examiner admits that Conklin et al. does not disclose.

For at least the foregoing reasons and for the reasons given above with respect to

claim 11, from which claim 15 depends, Appellants submit that the rejection of claim 15

under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper.

Accordingly, Appellants request that the rejection be reversed.

11.   Claim 16

Claim 16 depends from claim 15. Therefore, this claim is patentable over Conklin

et al. and Chakrabarti et al., whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 15. Moreover, this claim recites an

additional feature not disclosed or suggested by Conklin et al. and Chakrabarti et al.

Claim 16 recites identifying the first set of objects using host names. The

Examiner admits that Conklin et al. does not disclose this feature and alleges that "host

names reads on web pages" and points to col. 6, lines 2-30, and col. 17, lines 37-48, of

Chakrabarti et al. for support (Office Action, page 16). Appellants disagree.

Contrary to the Examiner's allegation, one skilled in the art would readily

recognize that a host name is not equivalent to a web page. Moreover, the Examiner has

not logically explained how one could reasonably interpret a host name to be the same as

a web page.

Nevertheless, at col. 6, lines 2-30, Chakrabarti et al. discloses:

relevance undertaken by iteration.

More specifically, in accordance with the method, the information
elements are defined as, one or more statements of authority that form a
unit of reference, such as part, or all of a Web page, or a number of Web
pages in combination, that are found to have relevance to subject matter of
interest as determined by improved, automated computation of weights for

link between information elements; e.g., weights for hyperlink between
Web pages. Additionally, the method features procedures for filtering the
information elements to diminish spurious effects which adversely affect
computation of relevance. Still further, the invention in preferred form
includes steps for introducing into the process example information
elements; e.g., example Web pages, found to be desirable so as to bias the
computations in a desired direction, and steps for excluding undesired
information elements; e.g., Web pages, so as to suppress biasing of the
computation in unwanted directions.

In the interests of simplicity, and to assist understanding,.

This section of Chakrabarti et al. in no way supports the Examiner's allegation that Web

pages are host names. In fact, this section of Chakrabarti et al. seems to use the term

"Web page" in accordance with its customary meaning in the art - a document on the

World Wide Web.

As set forth above, the Examiner alleges that the first set of objects corresponds to

authority and hub scores (Office Action, page 13). Yet, the above section of Chakrabarti

et al. does not disclose authority scores or hub scores. Appellants submit that this section

of Chakrabarti et al. does not disclose or suggest identifying the first set of objects using

host names, as required by claim 16.

At col. 17, lines 37-48, Chakrabarti et al. discloses:

Continuing with reference to FIG. 7, interface 138 in preferred form is
seen to include a third screen 202, again having multiple partitions. In the
case of interface screen 202, a partition 204 is provided for displaying the
content of a document included at lists 180 or 182 of, respectively,
authority or hub pages for a selected frame presented at partition 178 of
interface screen 176. As will be appreciated, presentation of the content
and links of an authority or hub page enables the user to quickly and easily
monitor the effectiveness of the query and search process; i.e., frame
attributes, and iteratively adjust the pages returned to populate the selected

frame of structure 100.

This section of <u>Chakrabarti et al.</u> discloses an interface that displays the content and links of an authority or hub page. This section of <u>Chakrabarti et al.</u> in no way supports the Examiner's allegation that Web pages are host names.

As set forth above, the Examiner alleges that the first set of objects corresponds to authority and hub scores (Office Action, page 13). This section of <u>Chakrabarti et al.</u> does not disclose or suggest identifying authority and hub scores using host names.

Even assuming, for the sake of argument, that one skilled in the art could reasonably construe <u>Chakrabarti et al.</u> to disclose identifying the first set of objects using host names, as required by claim 16, Appellants submit that one skilled in the art would not have been motivated to combine this alleged teaching of <u>Chakrabarti et al.</u> with the disclosure of <u>Conklin et al.</u>, absent impermissible hindsight. With respect to motivation, the Examiner alleges that "[i]t would have been obvious ... to modify the teachings of Conklin with the teachings of Chakrabarti ... with the motivation to enable the user to ... search conveniently and efficiently to identify information elements on the World Wide Web pages... having relevance to subject matter of interest (Chakrabarti, col 5, lines 50-56) and also for improving the determination of relevance amongst the related information elements as the Web pages considered as a whole, in part, or in combination by filtering to reduce the effects of spurious factors which adversely effect accuracy (Chakrabarti, col 5, lines 24-29)" (Office Action, pages 16-17). Appellants respectfully disagree.

Initially, Appellants note that the alleged motivation (i.e., to enable a user to search conveniently and efficiently and to improve the determination of relevance amongst related information elements) is merely a conclusory statement regarding alleged benefits of the combination. Such motivation does not satisfy the requirements of 35 U.S.C. § 103. In this respect, Appellants rely upon In re Deuel, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995), wherein it was held that generalizations do not establish the realistic motivation to modify a specific reference in a specific manner to arrive at a specifically claimed invention.

Secondly, the portions of Chakrabarti et al. on which the Examiner relies (i.e., col. 5, lines 50-56 and 24-29) also provide no support for the combination. At col. 5, lines 50-56, Chakrabarti et al. discloses:

> Yet additionally, it is also an object of the present invention to provide a method for enabling users to interactively develop databases of preferred information elements, which databases may be subsequently searched conveniently and efficiently to identify information elements such as World Wide Web pages, in whole, in part or in combination. having relevance to subject matter of interest.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al. invention is to enable users to interactively develop databases of preferred information elements. The Examiner does not logically explain how developing databases would lead one skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of identifying the first set of objects using host names into Conklin et al.'s information retrieval system 100 that identifies and ranks query feedback terms to facilitate a user in re-formatting a new

query (Conklin et al., Abstract).

At col. 5, lines 24-29, Chakrabarti et al. discloses:

Yet further, it is an object of the present invention to provide a method for improving the determination of relevance amongst related information elements such as Web pages, considered in whole, in part, or in combination, by the filtering to reduce the effects of spurious factors which adversely effect accuracy.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al. invention is to provide a method for improving the determination of relevance among related information elements. The Examiner does not logically explain how improving the relevance amongst related information elements would lead one skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of identifying the first set of objects using host names into Conklin et al.'s information retrieval system 100 that identifies and ranks query feedback terms to facilitate a user in re-formatting a new query (Conklin et al., Abstract).

Moreover, the mere fact that one reference allegedly provides some missing disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as to why it would have been obvious to combine the references. Appellants assert that it would not have been obvious to combine these two references without the benefit of Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why one skilled in the art would have realistically been motivated to combine the teachings of Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

For at least the foregoing reasons and for the reasons given above with respect to

claim 15, from which claim 16 depends, Appellants submit that the rejection of claim 16

under 35 U.S.C. § 103(a) based on <u>Conklin et al.</u> and <u>Chakrabarti et al.</u> is improper.

Accordingly, Appellants request that the rejection be reversed.

12.   Claim 19

Claim 19 depends from claim 11. Therefore, this claim is patentable over <u>Conklin</u>

<u>et al.</u> and <u>Chakrabarti et al.</u>, whether taken alone or in any reasonable combination, for at

least the reasons given above with respect to claim 11. Moreover, this claim recites an

additional feature not disclosed or suggested by <u>Conklin et al.</u> and <u>Chakrabarti et al.</u>

Claim 19 recites that the editorial opinion parameter causes the rank of an object

to be increased or decreased based on whether the object is in the first or second set. The

Examiner admits that <u>Conklin et al.</u> does not disclose this feature and relies on col. 20,

line 22-51, and col. 19, line 58, to col. 20, line 2, of <u>Chakrabarti et al.</u> for allegedly

disclosing this feature (Office Action, page 19). Appellants submit that these sections of

do not disclose or suggest the feature of claim 19.

At the outset, Appellants note that since, as set forth above with respect to claim

11, <u>Chakrabarti et al.</u> does not disclose an editorial opinion parameter, <u>Chakrabarti et al.</u>

cannot disclose an editorial opinion parameter that causes the rank of an object to be

increased or decreased based on whether the object is in the first or second set, as

required by claim 19.

Nevertheless, at col. 20, lines 22-51, <u>Chakrabarti et al.</u> discloses:

Subsequently, and yet further, where copied pages are found; i.e., where

replication relevance is present, and all but one deemed the original is eliminated, to reflect the significance of the page having been copied, the weight of the links for the retained page, as described above, are increased by a factor equal to the log of the number of copies. Further, this replication relevance is applied as a multiplication factor to the link weight as enhanced by any other relevance factor.

Still further, and thereafter, where example pages are used, because of the importance of respective example pages, the weight of the links within an example page are likewise increased based on example relevance thereby deemed present. Particularly, the weights of all links within example hub pages are increased by a multiplication factor of 1.1. In the case of example authority pages, the weight of links within the page are increased by first identifying a page region as defined by the occurrence of a page and/or section heading, and/or ruled page line; page and section headings and ruled lines being defined in conventional HTML fashion. Subsequently, within the identified region, a window of 25 links forward and 25 links backward in the page from the subject link is placed about a subject link. Thereafter, if there is one example authority link within the window, a multiplication factor of 1.1 is applied to the weight of the subject link. Further, if there are two or more example authority links within the window, a multiplication factor of 1.5 is applied to the weight of the subject link. However, if no example authority links are present within the window, no multiplication factor is applied to the weight of the subject link.

This section of Chakrabarti et al. discloses increasing the weight of a link when copied

pages are found, increasing the weight of a link when the link is within an example page,

and increasing the weight of a link if one or more example authority pages are within an

identified page region. This section of Chakrabarti et al. in no way discloses or suggests

that the link weight is an editorial opinion parameter. The Examiner has not pointed to

any section of Chakrabarti et al. that indicates that the link weight parameter is editorial

in nature or an opinion. The disclosure of Chakrabarti et al. in no way supports the

Examiner's allegation that the link weight is equivalent to an editorial opinion parameter.

At col. 19, line 58, to col. 20, line 2, <u>Chakrabarti et al.</u> discloses:

Particularly, and with regard to the contents of matrix $B=[b_{ji}]$, b_{ji} is the weight of link i, which points to page j. Initially, b_{ji} is set to 1, the default hub link weight, if link i points to page j, and is 0 otherwise. Thereafter, hub link weight b_{ji} is increased if the link can be considered to have additional relevance due to one or more of such factors as: being located in a page close to a search term; referred to as "context relevance", context relevance being additive for each occurrence of required proximity to a search term; or being copied multiple time; i.e., termed "replication relevance"; or being illustrative of a preferred link; termed "example relevance."

Similar to the section above, this section of <u>Chakrabarti et al.</u> discloses the increasing of link weights. This section of <u>Chakrabarti et al.</u> in no way discloses or suggests that a link weight is equivalent to an editorial opinion parameter or that the link weight is increased or decreased based on an editorial opinion parameter.

Even assuming, for the sake of argument, that one skilled in the art could reasonably construe <u>Chakrabarti et al.</u> to disclose an editorial opinion parameter that causes the rank of an object to be increased or decreased based on whether the object is in the first or second set, Appellants submit that one skilled in the art would not have been motivated to combine this alleged teaching of <u>Chakrabarti et al.</u> with the disclosure of <u>Conklin et al.</u>, absent impermissible hindsight. With respect to motivation, the Examiner alleges that "[i]t would have been obvious ... to modify the teachings of Conklin with the teachings of Chakrabarti ... with the motivation to enable the user to ... search conveniently and efficiently to identify information elements on the World Wide Web pages... having relevance to subject matter of interest (Chakrabarti, col 5, lines 50-56)

and also for improving the determination of relevance amongst the related information

elements as the Web pages considered as a whole, in part, or in combination by filtering

to reduce the effects of spurious factors which adversely effect accuracy (Chakrabarti, col

5, lines 24-29)" (Office Action, pages 19-20). Appellants disagree.

Initially, Appellants note that the alleged motivation (i.e., to enable a user to

search conveniently and efficiently and to improve the determination of relevance among

related information elements) is merely a conclusory statement regarding alleged benefits

of the combination. Such motivation does not satisfy the requirements of 35 U.S.C. §

103. In this respect, Appellants again rely upon In re Deuel, 51 F.3d 1552, 34 USPQ2d

1210 (Fed. Cir. 1995), wherein it was held that generalizations do not establish the

realistic motivation to modify a specific reference in a specific manner to arrive at a

specifically claimed invention.

Secondly, the portions of Chakrabarti et al. on which the Examiner relies

(i.e., col. 5, lines 50-56 and 24-29) also provide no support for the combination.

At col. 5, lines 50-56, Chakrabarti et al. discloses:

> Yet additionally, it is also an object of the present invention to provide a
> method for enabling users to interactively develop databases of preferred
> information elements, which databases may be subsequently searched
> conveniently and efficiently to identify information elements such as
> World Wide Web pages, in whole, in part or in combination. having
> relevance to subject matter of interest.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to enable users to interactively develop databases of preferred information

elements. The Examiner does not logically explain how developing databases would lead

one skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of an editorial

opinion parameter that causes the rank of an object to be increased or decreased based on

whether the object is in the first or second set into Conklin et al.'s information retrieval

system 100 that identifies and ranks query feedback terms to facilitate a user in re-

formatting a new query (Conklin et al., Abstract).

> At col. 5, lines 24-29, Chakrabarti et al. discloses:

> Yet further, it is an object of the present invention to provide a method for
> improving the determination of relevance amongst related information
> elements such as Web pages, considered in whole, in part, or in
> combination, by the filtering to reduce the effects of spurious factors
> which adversely effect accuracy.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to provide a method for improving the determination of relevance among

related information elements. The Examiner does not logically explain how improving

the relevance among related information elements would lead one skilled in the art to

incorporate Chakrabarti et al.'s alleged teaching of an editorial opinion parameter that

causes the rank of an object to be increased or decreased based on whether the object is in

the first or second set into Conklin et al.'s information retrieval system 100 that identifies

and ranks query feedback terms to facilitate a user in re-formatting a new query (Conklin

et al., Abstract).

Moreover, the mere fact that one reference allegedly provides some missing

disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as

to why it would have been obvious to combine the references. Appellants assert that it would not have been obvious to combine these two references without the benefit of Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why one skilled in the art would have realistically been motivated to combine the teachings of Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

For at least the foregoing reasons and for the reasons given above with respect to claim 11, from which claim 19 depends, Appellants submit that the rejection of claim 19 under 35 U.S.C. § 103(a) based on Conklin et al. and Chakrabarti et al. is improper. Accordingly, Appellants request that the rejection be reversed.

13.   Claim 23

Independent claim 23 is directed to a server that includes a memory and a processor. The memory is configured to store a plurality of query themes, information identifying, for each of the plurality of query themes, at least one favored or non-favored item associated with the query theme, and an editorial parameter associated with each favored and non-favored item. The processor is configured to receive a search query comprising one or more terms, retrieve items using the one or more terms, determine a score for each of the retrieved items, identify one of the plurality of query themes as matching the search query, determine, for each of the retrieved items, whether the retrieved item is associated with one of the favored or non-favored items associated with the one query theme, and adjust, for each of the retrieved items, the score of the retrieved item when the retrieved item is determined to be associated with a favored or non-favored

item. Conklin et al. and Chakrabarti et al., whether taken alone or in any reasonable

combination, do not disclose or suggest this combination of features.

For example, Conklin et al. and Chakrabarti et al. do not disclose a memory

configured to store a plurality of query themes. The Examiner alleges that Conklin et al.'s

theme query corresponds to the recited plurality of query themes (Office Action, page

24). Appellants disagree.

First, one skilled in the art would readily recognize that a plurality of query

themes (themes), which are recited in claim 23, is not the same as a theme query (words

or phrases used to conduct a search). The Examiner does not point to any section of

Conklin et al. that supports the allegation that a query is the same as a theme. Moreover,

the Examiner does not logically explain how a query can be interpreted to be equivalent

to a theme. Appellants submit that the Examiner has clearly misinterpreted the language

of claim 23.

Secondly, even assuming for the sake of argument, that one skilled in the art could

reasonably construe a theme query to correspond to a query theme, Appellants submit that

Conklin et al. does not disclose a memory configured to store a plurality of theme queries.

The Examiner relies on col. 3, line 67, to col. 4, line 8, of Conklin et al. for allegedly

disclosing a memory configured to store a plurality of theme queries (Office Action, page

24). Appellants disagree.

At col. 3, line 66, to col. 4, line 8, Conklin et al. discloses:

In one embodiment, the query processing 175 processes theme queries and

> text queries. For theme queries, the query processing 175 processes the
> input user query to identify the thematic content of the query. Specifically,
> a content processing system 110 (FIG. 7) analyzes the words or terms in
> the query to generate a query theme vector. In general, the query theme
> vector presents a thematic profile of the content in the query. A further
> discussion of theme vectors is described more fully below in the section
> "Content Processing System."

This section of <u>Conklin et al.</u> discloses the generation of a query theme vector based on

terms in a theme query. Contrary to the Examiner's allegation, this section of <u>Conklin et</u>

<u>al.</u> in no way discloses or suggests a memory configured to store a plurality of theme

queries or query themes.

The Examiner also relies on col. 4, lines 37-38 and 51-56, of <u>Conklin et al.</u> for

allegedly disclosing a memory configured to store a plurality of query themes. Appellants

submit that these sections of <u>Conklin et al.</u> do not disclose or suggest this feature of claim

23.

At col. 4, lines 33-38, <u>Conklin et al.</u> discloses:

> Although the query feedback of the present invention is described in
> conjunction with a system that identifies a document hit list, the invention
> may also be used in conjunction with a system that identifies any type of
> information that includes a plurality of topics responsive to the user query.

This section of <u>Conklin et al.</u> discloses that <u>Conklin et al.</u>'s query feedback system can be

used in conjunction with a system that identifies topics responsive to a user query. This

section of <u>Conklin et al.</u> does not disclose or suggest that a theme query is equivalent to a

query theme or a memory configured to store a plurality of query themes or theme

queries. In fact, this section of <u>Conklin et al.</u> does not even mention theme queries or

query themes.

At col. 4, line 51-64, <u>Conklin et al.</u> discloses:

Table 1 is an example document theme vector 160.

TABLE 1
Document Theme Vector

Document Themes	Theme Strength	Classification Category
$Theme_1$	190	$(category_a)$
$Theme_2$	110	None
$Theme_3$	70	$(Category_c)$
$Theme_4$	27	$(Category_d)$
.	.	.
.	.	.
.	.	.
$Theme_n$	8	$(Category_z)$

This section of <u>Conklin et al.</u> discloses a document theme vector. As illustrated in the above table, a document theme vector includes a list of document themes (Themes 1-N), a theme strength for each document theme, and a classification category for each document theme. This section of <u>Conklin et al.</u> does not disclose or suggest that a theme query is equivalent to a query theme or a memory configured to store a plurality of query themes or theme queries. In fact, this section of <u>Conklin et al.</u> does not even mention query themes or theme queries.

<u>Conklin et al.</u> and <u>Chakrabarti et al.</u> do not further disclose a memory configured to store information identifying, for each of the plurality of query themes, at least one favored or non-favored item associated with each query theme, as also recited in claim 23. With respect to this feature, the Examiner relies on <u>Conklin et al.</u> for allegedly

disclosing "a memory configured to store information identifying, for each of the plurality

of query themes," and on Chakrabarti et al. for allegedly disclosing "at least one favored

or non-favored item" (Office Action, pages 25 and 26). The Examiner's attempt to

reconstruct the above feature of claim 23 by illogically breaking the feature into parts is

clearly impermissible. Put another way, instead of addressing the entire feature of claim

11, the Examiner breaks the feature into parts and points to portions of Conklin et al. and

portions of Chakrabarti et al. for allegedly disclosing the individual parts. Such

piecemeal examination of this feature of Appellants' claim 23 is clearly impermissible.

The Examiner alleges, with respect to claim 23, that the recited plurality of query

themes is equivalent to Conklin et al.'s theme queries (Office Action, page 24). The

Examiner alleges that Chakrabarti et al. discloses at least one favored or non-favored

item, but does not point to any section of Chakrabarti et al. for support (Office Action,

page 26). With respect to other claims, however, the Examiner alleges that Chakrabarti et

al.'s authority and hub scores correspond to favored objects and Chakrabarti et al.'s stop

pages correspond to non-favored objects (see, for example, Office Action, pages 13-14).

Appellants submit that even assuming, for the sake of argument, that Conklin et al.'s

theme queries could reasonably be construed to correspond to a plurality of query themes

and that Chakrabarti et al.'s authority and hub scores could reasonably be construed to

correspond to at least one favored item and Chakrabarti et al.'s stop pages could

reasonably be construed to correspond to at least one non-favored item, one skilled in the

art would not have been motivated to combine Chakrabarti et al.'s alleged teaching into

the Conklin et al. system, absent impermissible hindsight.

With respect to motivation, the Examiner alleges "[i]t would have been obvious to
... modify the teachings of Conklin with the teachings of Chakrabarti to include at least
one favored or non-favored item and an editorial parameter associated with each favored
and non-favored item; determine a score for each of the retrieved items; and associated
with one of the favored or non-favored items and adjust, for each of the retrieved items,
the score of the retrieved item when the retrieved item is determined to be associated with
a favored or non-favored item with the motivation to enable the user to ... search
conveniently and efficiently to identify information elements on the World Wide Web
pages... having relevance to subject matter of interest (Chakrabarti, col 5, lines 50-56)
and also for improving the determination of relevance amongst the related information
elements as the Web pages considered in whole, in part, or in combination by filtering to
reduce the effects of spurious factors which adversely effect accuracy (Chakrabarti, col 5,
lines 24-29)" (Office Action, page 27). Appellants disagree.

Initially, Appellants note that the alleged motivation (i.e., to enable a user to
search conveniently and efficiently and to improve the determination of relevance
amongst related information elements) is merely a conclusory statement regarding alleged
benefits of the combination. Such motivation does not satisfy the requirements of 35
U.S.C. § 103. In this respect, Appellants rely upon In re Deuel, 51 F.3d 1552, 34
USPQ2d 1210 (Fed. Cir. 1995), wherein it was held that generalizations do not establish
the realistic motivation to modify a specific reference in a specific manner to arrive at a

specifically claimed invention.

Secondly, the portions of Chakrabarti et al. on which the Examiner relies

(i.e., col. 5, lines 50-56 and 24-29) also provide no support for the combination.

At col. 5, lines 50-56, Chakrabarti et al. discloses:

> Yet additionally, it is also an object of the present invention to provide a
> method for enabling users to interactively develop databases of preferred
> information elements, which databases may be subsequently searched
> conveniently and efficiently to identify information elements such as
> World Wide Web pages, in whole, in part or in combination. having
> relevance to subject matter of interest.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to enable users to interactively develop databases of preferred information

elements. The Examiner does not logically explain how developing databases would lead

one skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of at least one

favored or non-favored item into Conklin et al.'s information retrieval system 100 that

identifies and ranks query feedback terms to facilitate a user in re-formatting a new query

(Conklin et al., Abstract). Moreover, the Examiner does not explain and this section of

Chakrabarti et al. does not disclose why one would seek to modify the very operation of

Conklin et al.'s system, which is directed to ranking query feedback terms to facilitate a

user in re-formatting a new query (Conklin et al., Abstract), to include authority and hub

scores (which the Examiner alleges corresponds to at least one favored item), which

represent the degree of relevance of authority and hub pages, respectively (Chakrabarti et

al., col. 8, lines 36-45) or stop pages (which the Examiner alleges corresponds to at least

one non-favored item), which identify pages that are to be eliminated from a set of pages

obtained in response to a query (Chakrabarti et al., col. 7, line 66, to col. 8, line 10).

At col. 5, lines 24-29, Chakrabarti et al. discloses:

> Yet further, it is an object of the present invention to provide a method for
> improving the determination of relevance amongst related information
> elements such as Web pages, considered in whole, in part, or in
> combination, by the filtering to reduce the effects of spurious factors
> which adversely effect accuracy.

This section of Chakrabarti et al. discloses that an object of the Chakrabarti et al.

invention is to provide a method for improving the determination of relevance among

related information elements. The Examiner does not logically explain how this section

of Chakrabarti et al., which merely recites an alleged object of the Chakrabarti et al.

system, would lead one skilled in the art to incorporate Chakrabarti et al.'s alleged

teaching of at least one favored or non-favored item into Conklin et al.'s information

retrieval system 100 that identifies and ranks query feedback terms to facilitate a user in

re-formatting a new query (Conklin et al., Abstract). Moreover, the Examiner does not

explain and this section of Chakrabarti et al. does not disclose why one would seek to

modify the very operation of Conklin et al.'s system, which is directed to ranking query

feedback terms to facilitate a user in re-formatting a new query (Conklin et al., Abstract),

to include authority and hub scores (which the Examiner alleges corresponds to at least

one favored item), which represent the degree of relevance of authority and hub pages,

respectively (Chakrabarti et al., col. 8, lines 36-45) or stop pages (which the Examiner

alleges corresponds to at least one non-favored item), which identify pages that are to be

eliminated from a set of pages obtained in response to a query (Chakrabarti et al., col. 7, line 66, to col. 8, line 10).

Appellants note that the mere fact that one reference allegedly provides some missing disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as to why it would have been obvious to combine the references. Appellants assert that it would not have been obvious to combine these two references without the benefit of Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why one skilled in the art would have realistically been motivated to combine the teachings of Conklin et al. and Chakrabarti et al. further supports Appellants' assertion.

Conklin et al. and Chakrabarti et al. do not further disclose a memory configured to store an editorial parameter associated with each favored and non-favored item, as also recited in claim 23. The Examiner admits that Conklin et al. does not discloses this feature and relies on Chakrabarti et al. for allegedly disclosing this feature of claim 23, but does not point to any section of Chakrabarti et al. for support (Office Action, page 26). In other claims, the Examiner alleges that Chakrabarti et al.'s authority weight corresponds to an editorial opinion parameter (see, for example, Office Action, page 14). Appellants note that claim 23 does not recite an editorial opinion parameter. Instead, claim 23 recites an editorial parameter. Since the Examiner did not point to any section of Chakrabarti et al. for allegedly disclosing this feature, Appellants assume that the Examiner intends to rely on Chakrabarti et al.'s authority weight to also correspond to the recited editorial parameter. Appellants submit that Chakrabarti et al. does not disclose or

suggest a memory configured to store an editorial parameter associated with each favored

and non-favored item, as required by claim 23.

Chakrabarti et al. in no way discloses or suggests that the authority weight that is

associated with a link is an editorial parameter. The Examiner has not pointed to any

section of Chakrabarti et al. that indicates that the authority weight parameter is editorial

in nature. The disclosure of Chakrabarti et al. in no way supports the Examiner's

allegation that the authority weight is equivalent to an editorial parameter.

Moreover, even assuming, for the sake of argument, that one skilled in the art

could reasonably construe Chakrabarti et al.'s authority weight to be equivalent to an

editorial parameter, Chakrabarti et al. does not disclose that the authority weight is

associated with stop pages, which the Examiner alleges corresponds to the recited at least

one non-favored item. The Examiner has not pointed to any section of Chakrabarit et al.

that supports this allegation or logically explained why one skilled in the art would have

been motivated to modify the operation of the Chakrabarti et al. system so that authority

weights are associated with stop pages.

In addition, even assuming, for the sake of argument, that one skilled in the art

could reasonably construe Chakrabarti et al. to disclose a memory configured to store an

editorial parameter associated with each favored and non-favored item (something that

the Examiner has failed to establish), Appellants submit that one skilled in the art would

not have been motivated to combine this alleged teaching of Chakrabarti et al. with the

disclosure of Conklin et al., absent impermissible hindsight.

With respect to motivation, the Examiner alleges "[i]t would have been obvious to

... modify the teachings of Conklin with the teachings of Chakrabarti to include at least

one favored or non-favored item and an editorial parameter associated with each favored

and non-favored item; determine a score for each of the retrieved items; and associated

with one of the favored or non-favored items and adjust, for each of the retrieved items,

the score of the retrieved item when the retrieved item is determined to be associated with

a favored or non-favored item with the motivation to enable the user to ... search

conveniently and efficiently to identify information elements on the World Wide Web

pages... having relevance to subject matter of interest (Chakrabarti, col 5, lines 50-56)

and also for improving the determination of relevance amongst the related information

elements as the Web pages considered in whole, in part, or in combination by filtering to

reduce the effects of spurious factors which adversely effect accuracy (Chakrabarti, col 5,

lines 24-29)" (Office Action, page 27). Appellants disagree.

As set forth above, the alleged motivation (i.e., to enable a user to search

conveniently and efficiently and to improve the determination of relevance among related

information elements) is merely a conclusory statement regarding alleged benefits of the

combination. Such motivation does not satisfy the requirements of 35 U.S.C. § 103. In

re Deuel, 51 F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995).

Secondly, the portions of Chakrabarti et al. on which the Examiner relies (i.e., col.

5, lines 50-56 and 24-29) also provide no support for the combination. Col. 5, lines 50-

56, of Chakrabarti et al. is reproduced above. This section of Chakrabarti et al. discloses

that an object of the Chakrabarti et al. invention is to enable users to interactively develop

databases of preferred information elements. The Examiner does not logically explain

how developing databases would lead one skilled in the art to incorporate Chakrabarti et

al.'s alleged teaching of a memory configured to store an editorial parameter associated

with each favored and non-favored item into Conklin et al.'s information retrieval system

100 that identifies and ranks query feedback terms to facilitate a user in re-formatting a

new query (Conklin et al., Abstract). Moreover, the Examiner does not explain and this

section of Chakrabarti et al. does not disclose why one would seek to modify the very

operation of Conklin et al.'s system, which is directed to ranking query feedback terms to

facilitate a user in re-formatting a new query (Conklin et al., Abstract), to include a

memory configured to store an editorial parameter associated with each favored and non-

favored item.

Col. 5, lines 24-29, of Chakrabarti et al. is reproduced above. This section of

Chakrabarti et al. discloses that an object of the Chakrabarti et al. invention is to provide

a method for improving the determination of relevance among related information

elements. The Examiner does not logically explain how this section of Chakrabarti et al.,

which merely recites an alleged object of the Chakrabarti et al. system, would lead one

skilled in the art to incorporate Chakrabarti et al.'s alleged teaching of a memory

configured to store an editorial parameter associated with each favored and non-favored

item into Conklin et al.'s information retrieval system 100 that identifies and ranks query

feedback terms to facilitate a user in re-formatting a new query (Conklin et al., Abstract).

Moreover, the Examiner does not explain and this section of <u>Chakrabarti et al.</u> does not disclose why one would seek to modify the very operation of <u>Conklin et al.</u>'s system, which is directed to ranking query feedback terms to facilitate a user in re-formatting a new query (<u>Conklin et al.</u>, Abstract), to include a memory configured to store an editorial parameter associated with each favored and non-favored item.

The mere fact that one reference allegedly provides some missing disclosure with respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as to why it would have been obvious to combine the references. Appellants assert that it would not have been obvious to combine these two references without the benefit of Appellants' disclosure. Moreover, the failure of the Examiner to logically explain why one skilled in the art would have realistically been motivated to combine the teachings of <u>Conklin et al.</u> and <u>Chakrabarti et al.</u> further supports Appellants' assertion.

<u>Conklin et al.</u> and <u>Chakrabarti et al.</u> do not further disclose a processor configured to identify one of the plurality of query themes as matching the search query. The Examiner relies on col. 3, line 67, to col. 4, line 8, of <u>Conklin et al.</u> for allegedly disclosing this feature (Office Action, page 25). Moreover, the Examiner alleges that the query themes are equivalent to <u>Conklin et al.</u>'s theme queries (Office Action, page 25). Appellants disagree.

As set forth above, one skilled in the art would readily recognize that a plurality of query themes (themes), which is recited in claim 23, is not the same as a theme query (words or phrases used to conduct a search). The Examiner does not point to any section

of <u>Conklin et al.</u> that supports the allegation that a query is the same as a theme.

Moreover, the Examiner does not logically explain how a query can be interpreted to be

equivalent to a theme. Appellants submit that the Examiner has clearly misinterpreted the

language of claim 23.

Secondly, even assuming for the sake of argument, that one skilled in the art could

reasonably construe a theme query to correspond to a query theme, Appellants submit that

<u>Conklin et al.</u> does not disclose a processor configured to identify one of the plurality of

theme queries as matching the search query.

Col. 3, line 66, to col. 4, line 8, of <u>Conklin et al.</u> is reproduced above. This

section of <u>Conklin et al.</u> discloses the generation of a query theme vector based on terms

in a theme query. Contrary to the Examiner's allegation, this section of <u>Conklin et al.</u> in

no way discloses or suggests that a theme query is the same as a query theme or a

processor configured to identify one of the plurality of theme queries as matching the

search query. In fact, <u>Conklin et al.</u> does not disclose matching one query to another

(under the Examiner's interpretation).

The Examiner also relies on col. 4, lines 37-38 and 51-56, of <u>Conklin et al.</u> for

allegedly disclosing a processor configured to identify one of the plurality of query

themes as matching the search query. Appellants submit that these sections of <u>Conklin et</u>

<u>al.</u> do not disclose or suggest this feature of claim 23.

Col. 4, lines 33-38, of <u>Conklin et al.</u> is reproduced above. This section of <u>Conklin</u>

<u>et al.</u> discloses that <u>Conklin et al.</u>'s query feedback system can be used in conjunction

with a system that identifies topics responsive to a user query. This section of <u>Conklin et</u> <u>al.</u> does not disclose or suggest that a theme query is equivalent to a query theme or a processor configured to identify one of the plurality of theme queries as matching the search query. In fact, this section of Conklin et al. does not even mention theme queries.

Col. 4, line 51-64, of <u>Conklin et al.</u> is reproduced above. This section of <u>Conklin</u> <u>et al.</u> discloses a document theme vector. As illustrated in the above table, a document theme vector includes a list of document themes (Themes 1-N), a theme strength for each document theme, and a classification category for each document theme. This section of <u>Conklin et al.</u> does not disclose or suggest that a theme query is equivalent to a query theme or a processor configured to identify one of the plurality of theme queries as matching the search query. In fact, this section of <u>Conklin et al.</u> does not even mention theme queries.

<u>Conklin et al.</u> and <u>Chakrabarti et al.</u> do not further disclose a processor configured to determine, for each of the retrieved items, whether the retrieved item is associated with one of the favored or non-favored items associated with the query theme, as also recited in claim 23. With respect to this feature, the Examiner relies on <u>Conklin et al.</u> for allegedly disclosing "a processor configured to determine, for each of the retrieved items, whether the retrieved item is," on <u>Chakrabarti et al.</u> for allegedly disclosing "associated with one of the favored or non-favored items," and on <u>Conklin et al.</u> again for allegedly disclosing "associated with the one query theme" (Office Action, pages 25 and 26). The Examiner's attempt to reconstruct the above feature of claim 23 by illogically breaking

the feature into parts is clearly impermissible. Put another way, instead of addressing the

entire feature of claim 23, the Examiner breaks the feature into parts and points to

portions of Conklin et al. and portions of Chakrabarti et al. for allegedly disclosing the

individual parts. Such piecemeal examination of this feature of Appellants' claim 23 is

clearly impermissible. Neither Conkin et al. nor Chakrabarti et al. discloses or suggests a

processor configured to determine, for each of the retrieved items, whether the retrieved

item is associated with one of the favored or non-favored items associated with the query

theme, as required by claim 23.

Even assuming for the sake of argument, that such piecemeal examination was

permissible, Appellants submit that one skilled in the art would not be motivated to

combine Conklin et al. and Chakrabarti et al. in the manner alleged by the Examiner,

absent impermissible hindsight. With respect to motivation, the Examiner alleges "[i]t

would have been obvious to ... modify the teachings of Conklin with the teachings of

Chakrabarti to include at least one favored or non-favored item and an editorial parameter

associated with each favored and non-favored item; determine a score for each of the

retrieved items; and associated with one of the favored or non-favored items and adjust,

for each of the retrieved items, the score of the retrieved item when the retrieved item is

determined to be associated with a favored or non-favored item with the motivation to

enable the user to ... search conveniently and efficiently to identify information elements

on the World Wide Web pages... having relevance to subject matter of interest

(Chakrabarti, col 5, lines 50-56) and also for improving the determination of relevance

among the related information elements as the Web pages considered in whole, in part, or

in combination by filtering to reduce the effects of spurious factors which adversely effect

accuracy (Chakrabarti, col 5, lines 24-29)" (Office Action, page 27). Appellants disagree.

The alleged motivation (i.e., to enable a user to search conveniently and

efficiently and to improve the determination of relevance among related information

elements) is merely a conclusory statement regarding alleged benefits of the combination.

Such motivation does not satisfy the requirements of 35 U.S.C. § 103. In re Deuel, 51

F.3d 1552, 34 USPQ2d 1210 (Fed. Cir. 1995).

Secondly, the portions of Chakrabarti et al. on which the Examiner relies (i.e., col.

5, lines 50-56 and 24-29) also provide no support for the combination. Col. 5, lines 50-

56, of Chakrabarti et al. is reproduced above. This section of Chakrabarti et al. discloses

that an object of the Chakrabarti et al. invention is to enable users to interactively develop

databases of preferred information elements. The Examiner does not logically explain

how developing databases would lead one skilled in the art to incorporate Chakrabarti et

al.'s alleged teaching of one of the favored or non-favored items into Conklin et al.'s

information retrieval system 100 that identifies and ranks query feedback terms to

facilitate a user in re-formatting a new query (Conklin et al., Abstract). Moreover, the

Examiner does not explain and this section of Chakrabarti et al. does not disclose why

one would seek to modify the very operation of Conklin et al.'s system, which is directed

to ranking query feedback terms to facilitate a user in re-formatting a new query (Conklin

et al., Abstract), to include one of the favored or non-favored items.

Col. 5, lines 24-29, of <u>Chakrabarti et al.</u> is reproduced above. This section of

<u>Chakrabarti et al.</u> discloses that an object of the <u>Chakrabarti et al.</u> invention is to provide

a method for improving the determination of relevance among related information

elements. The Examiner does not logically explain how this section of <u>Chakrabarti et al.</u>,

which merely recites an alleged object of the <u>Chakrabarti et al.</u> system, would lead one

skilled in the art to incorporate <u>Chakrabarti et al.</u>'s alleged teaching of one of the favored

or non-favored items into <u>Conklin et al.</u>'s information retrieval system 100 that identifies

and ranks query feedback terms to facilitate a user in re-formatting a new query (<u>Conklin</u>

<u>et al.</u>, Abstract). Moreover, the Examiner does not explain and this section of

<u>Chakrabarti et al.</u> does not disclose why one would seek to modify the very operation of

<u>Conklin et al.</u>'s system, which is directed to ranking query feedback terms to facilitate a

user in re-formatting a new query (<u>Conklin et al.</u>, Abstract), to include one of the favored

or non-favored items.

The mere fact that one reference allegedly provides some missing disclosure with

respect to a claim does not satisfy the requirements of 35 U.S.C. § 103 as to why it would

have been obvious to combine the references. Appellants assert that it would not have

been obvious to combine these two references without the benefit of Appellants'

disclosure. Moreover, the failure of the Examiner to logically explain why one skilled in

the art would have realistically been motivated to combine the teachings of <u>Conklin et al.</u>

and <u>Chakrabarti et al.</u> further supports Appellants' assertion.

For at least the foregoing reasons, Appellants submit that the rejection of claim 23

under 35 U.S.C. § 103(a) based on <u>Conklin et al.</u> and <u>Chakrabarti et al.</u> is improper.

Accordingly, Appellants request that the rejection be reversed.


IX.   CONCLUSION

In view of the foregoing arguments, Appellants respectfully solicit the Honorable

Board to reverse the outstanding rejections of claims 1-23.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §

1.136 is hereby made. Please charge any shortage in fees due in connection with the

filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and

please credit any excess fees to such deposit account.

Respectfully submitted,

HARRITY & SNYDER, L.L.P.
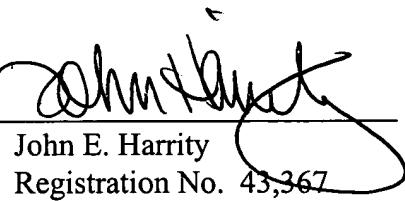
By: _____
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APPENDIX

1. A method for providing search results, comprising:

  receiving a search query;

  retrieving one or more objects in response to the search query;

  determining whether the search query corresponds to at least one query

theme of a group of query themes;

   ranking the one or more objects based on a result of the determination; and

   providing the ranked one or more objects.

2. The method of claim 1 wherein the objects include web pages.

3. The method of claim 1 further comprising:

  determining whether any of the one or more objects relates to a list of

favored and non-favored sources.

4. The method of claim 3 wherein the ranking includes:

  determining a score for those objects that are unrelated to the list of

favored and non-favored sources using a first group of parameters,

   determining a score for those objects that relate to the list of favored or

non-favored sources using the first group of parameters and an editorial opinion

parameter, and

ranking the objects based on the determined scores.

5. The method of claim 4 wherein the editorial opinion parameter causes the rank of those objects corresponding to favored sources to be increased and a rank of those objects corresponding to non-favored sources to be decreased.

6. The method of claim 1 wherein the determining includes:

determining whether the search query corresponds to a query rule associated with each query theme.

7. The method of claim 1 wherein each query theme is classified into a first set of topics, and

wherein the determining includes:

classifying the search query into a second set of topics, and

determining that the search query corresponds to a query theme when the second set of topics relates to the first set of topics associated with that query theme.

8.   A system that provides search results, comprising:

        means for receiving a search query that includes at least one search term;

        means for retrieving one or more objects based on the at least one search.

term;

        means for determining whether the search query corresponds to at least

one of a plurality of query themes;

        means for ranking the one or more objects based on whether the search

query corresponds to at least one of the plurality of query themes; and

        means for providing the ranked one or more objects.

9.   A computer-readable medium containing instructions for controlling at

least one processor to perform a method that provides search results, the method

comprising:

        receiving a search query that includes at least one search term;

        obtaining one or more objects based on the at least one search term;

        determining whether the search query corresponds to at least one of a

plurality of query themes;

        determining a score for each of the one or more objects based on whether

the search query corresponds to at least one of the plurality of query themes; and

        providing a ranked list containing the one or more objects based on the

determined score.

10. A server comprising:

a memory configured to store instructions and a group of query themes; and

a processor configured to execute the instructions to obtain a search query that includes at least one search term, retrieve one or more objects based on the at least one search term, determine whether the search query corresponds to at least one of the group of query themes, rank the one or more objects based on whether the search query corresponds to at least one of the group of query themes, and provide the ranked one or more objects.

11. A method for determining an editorial opinion parameter for use in ranking search results, comprising:

developing one or more query themes;

identifying, for each query theme, a first set of objects as favored objects;

identifying, for each query theme, a second set of objects as non-favored objects; and

determining an editorial opinion parameter for each of the objects in the first and second sets.

12.   The method of claim 11 further comprising:

determining, for each query theme, one or more rules for determining whether a

search query satisfies the respective query theme.

13.   The method of claim 11 further comprising:

determining, for each query theme, one or more topics for determining whether a

search query satisfies the respective query theme.

14.   The method of claim 13 wherein the one or more topics are selected from at least

one hierarchical directory

15.   The method of claim 11 wherein the first and second sets of objects are sets of

web sites.

16.   The method of claim 15 wherein the identifying a first set of objects includes:

identifying the first set of objects using host names.

17.   The method of claim 15 wherein the identifying a first set of objects includes:

identifying the first set of objects using one or more Uniform Resource Locator

(URL) prefixes.

18.   The method of claim 15 wherein the identifying a first set of objects includes:

classifying each query theme into a set of topics from a hierarchical directory, and

identifying host names listed under the set of topics as being in the first set of

objects for that query theme.

19.   The method of claim 11 wherein the editorial opinion parameter causes a rank of

an object to be increased or decreased based on whether the object is in the first or second set.

20.   A computer-readable medium containing one or more instructions for controlling

at least one processor to perform a method for determining an editorial opinion parameter for use

in ranking search results, the method comprising:

identifying, for each of a group of search query themes, a first set of objects as

favored objects;

identifying, for each of the group of search query themes, a second set of objects

as non-favored objects; and

determining an editorial opinion parameter for each of the objects in the first and

second sets of objects.

21.   A computer-readable medium containing a data structure comprising:

a query theme field that stores at least one query theme;

a favored and non-favored sources field that stores information identifying

favored and non-favored web sites for each query theme in the query theme field; and

an editorial parameter field that stores an editorial parameter for each favored and non-favored web site identified in the favored and non-favored sources field.

22.   The computer-readable medium of claim 21 wherein the at least one query theme includes at least one of a query theme rule and a set of topics from one or more hierarchical directories.

23.   A server comprising:

a memory configured to store a plurality of query themes, information identifying, for each of the plurality of query themes, at least one favored or non-favored item associated with the query theme, and an editorial parameter associated with each favored and non-favored item; and

a processor configured to:

receive a search query comprising one or more terms,

retrieve items using the one or more terms,

determine a score for each of the retrieved items,

identify one of the plurality of query themes as matching the search query,

determine, for each of the retrieved items, whether the retrieved item is

associated with one of the favored or non-favored items associated with the one query theme, and

adjust, for each of the retrieved items, the score of the retrieved item when

the retrieved item is determined to be associated with a favored or non-favored item.